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THE CHANGING PATTERN OF RETAIL DISTRIBUTION

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1. INTRODUCTION

This article attempts to show the main features of retail distribution in a number of countries, with particular reference to the degree of concentration of business. As it draws entirely upon published sources, which are more plentiful for the United States and Canada, the United Kingdom and other European countries are necessarily under-represented. So far as scattered and discontinuous data permit, the trend in concentration will also be examined.

By concentration is meant simply the extent to which the total volume of retail sales is canalised through a small number of channels; these channels may be either the retail outlets themselves (i.e. stores), or the horizontal organisations of retail outlets (i.e. chains, etc.); concentration will be discussed with regard to both. The first may be described by percentage distributions of stores and sales according to size of outlet, the second by similar distributions according to size of organisation.

The measure chosen for indicating size of outlet or organisation is somewhat arbitrary, being generally imposed by the kind of data available. For stores, the volume of annual net sales will normally be used, for organisations, both the volume of annual net sales of the whole organisation, and the number of stores controlled.

A. THE PRESENT PATTERN OF RETAIL DISTRIBUTION

1. TECHNICAL CONCENTRATION.—(*a*) *General picture, by countries.*

We shall first examine, in broad outline, the importance of various sizes of retail outlet in all the countries for which data are available. Much of this data is necessarily of uncertain accuracy, since full-scale Censuses of Distribution have been carried out in only three countries—the United States in 1929, 1933, 1935, 1939, Canada in 1930, and Eire in 1933.

From the percentage distributions of stores and sales, by size of store, given in Table 1, it is clear that in distribution, the picture is, one of a small number of large units collectively responsible, to a varying degree in different countries, for a proportion of sales out of all relation to their number, and at the other end of the scale, of a very large number of small stores, individually unimportant, but still obtaining collectively a substantial part of the total sales.

TABLE 1.—*Percentage share of total stores and sales, by size of store, in U.S.A., Canada, Eire, and Denmark.*

Store Size	*U.S.A.**						*Canada†*	
Annual Net Sales	1929		1933		1935		1930	
($ '000)	% of Stores	% of Sales	% of Stores	% of Sales	% of Stores	% of Sales	% of Stores	% of Sales
0— 9	43.6	5.7	64.4	13.8	59.9	11.0	56.59	9.51
10— 19	20.3	9.0	17.1	14.5	17.7	12.3	18.91	12.26
20— 29	11.2	8.6	7.1	10.4	7.9	9.5	9.35	10.39
30— 49	11.5	13.7	5.8	13.4	7.3	13.9	7.62	13.30
50— 99	8.4	17.8	3.7	15.0	4.4	15.1	4.83	15.19
100—299	4.1	20.1	1.6	15.0	2.3	17.6	2.17	15.64
300—499	0.6	6.5	0.2	4.5	0.3	5.5	0.31	5.38
500—999	0.3	6.3	0.1	3.7	0.2	5.0	0.13	4.08
1000 and over	0.1	12.3	0.1	9.7	0.1	10.1	0.07	14.25
All sizes	100.0	100.0	100.0	100.0	100.0	100.0	100.00	100.00

Store Size Annual Net Sales (£)	*Eire‡* % of Stores	% of Sales	*Store Size* Annual Net Sales (Kronen)	*Denmark§* 1925 % of Stores	% of Sales
0— 99	13.6	0.4	0—50,000	68	20
100— 499	35.0	5.5	50,000—200,000	26	37
500— 999	17.8	7.6	200,000 and over	6	43
1000— 2499	18.2	17.3			
2500— 4999	8.6	18.0			
5000— 9999	4.4	18.1			
10000—49999	2.3	24.9			
50000 and over	0.1	8.2			
All Sizes	100.0	100.0		100	100

* Fifteenth Census of the United States (1930) : Retail Distribution Part 1. Census of Business (1933) (1935).
†Seventh Census of Canada (1930).
‡Eire : Census of Distribution (1933).
§International Chamber of Commerce : Distribution in 26 countries.

Though the present method of measuring concentration does not adequately reflect the extent of centralised control,[1] the differences between countries are at once apparent. The results may be roughly summarised : about half of total retail sales are accounted for in the United States by : 13·5 per cent of stores (1929), 5·7 per cent (1933), 7·3 per cent (1935) 8.8 per cent (average 1929–35); in Canada, 7.0 per cent (1930) ; in Eire, 6.8 per cent (1933); and in Denmark, 6.0 per cent (1925); and about one quarter of sales accounted for by 0.1 per cent of the stores. This rather

[1] While department stores are individually large units (so that any appreciable development in this field is adequately represented, the individual outlets of a chain system are often small, and the influence of chains is therefore under-emphasised.

startling evidence of extreme concentration at one end of the range is due primarily to the influence of very large department stores, which, in the United States for example, each obtained (1929) annual net sales of about $1 million, out of total retail sales of $49,000 million, and were thirty times as large as the average size for all stores.

The degree of concentration in various countries has been graphically illustrated by Pareto curves (Figs. 1 and 2), and Lorenz curves (Fig. 3), from which international comparisons can readily be made. The Pareto curves

FIG. 1. DISTRIBUTION OF TOTAL SALES BY SIZE OF STORE IN THE UNITED STATES, CANADA, EIRE, AND DENMARK.

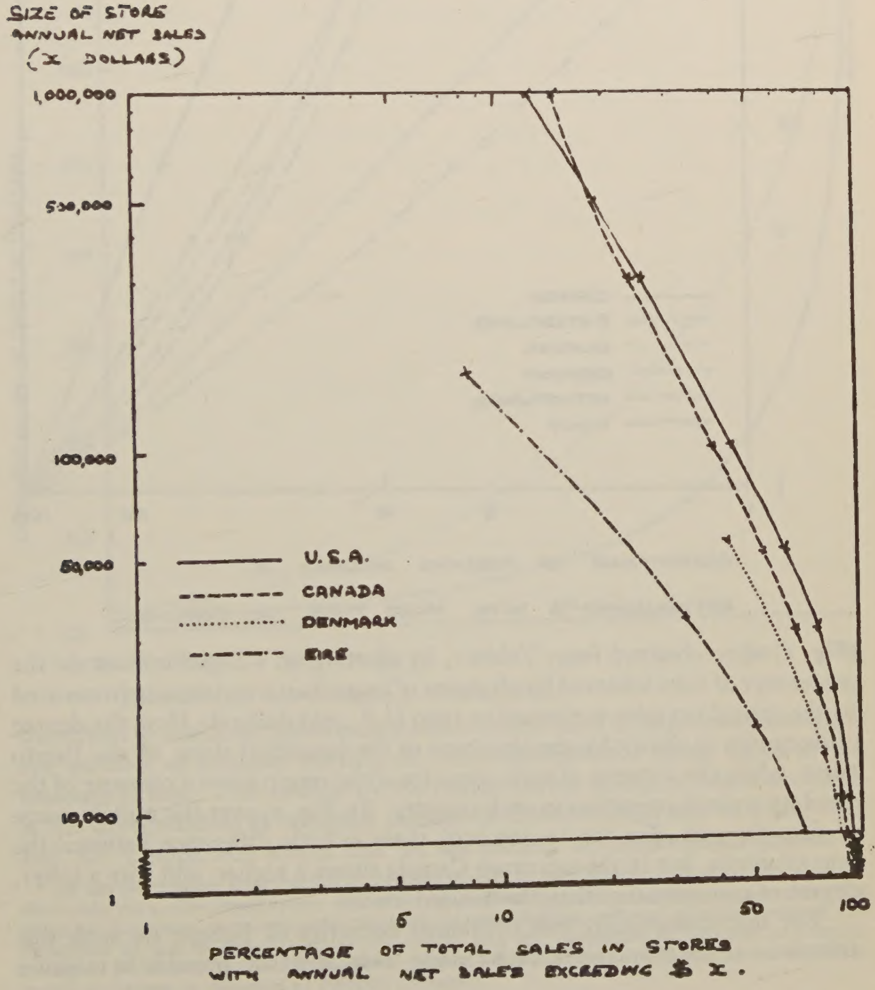
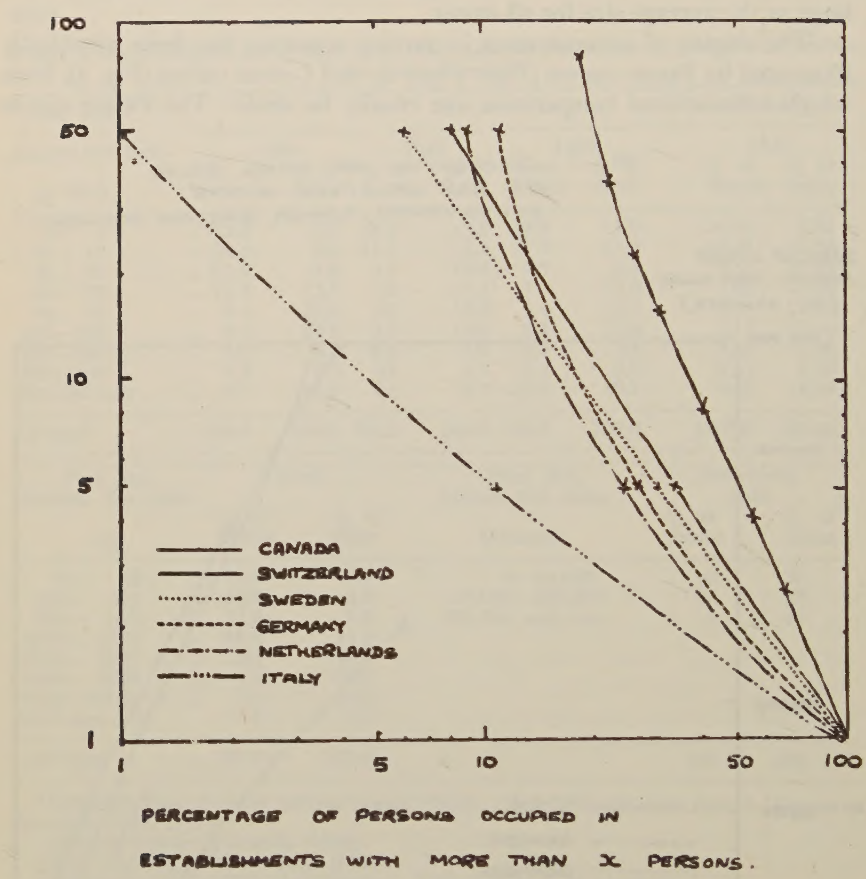


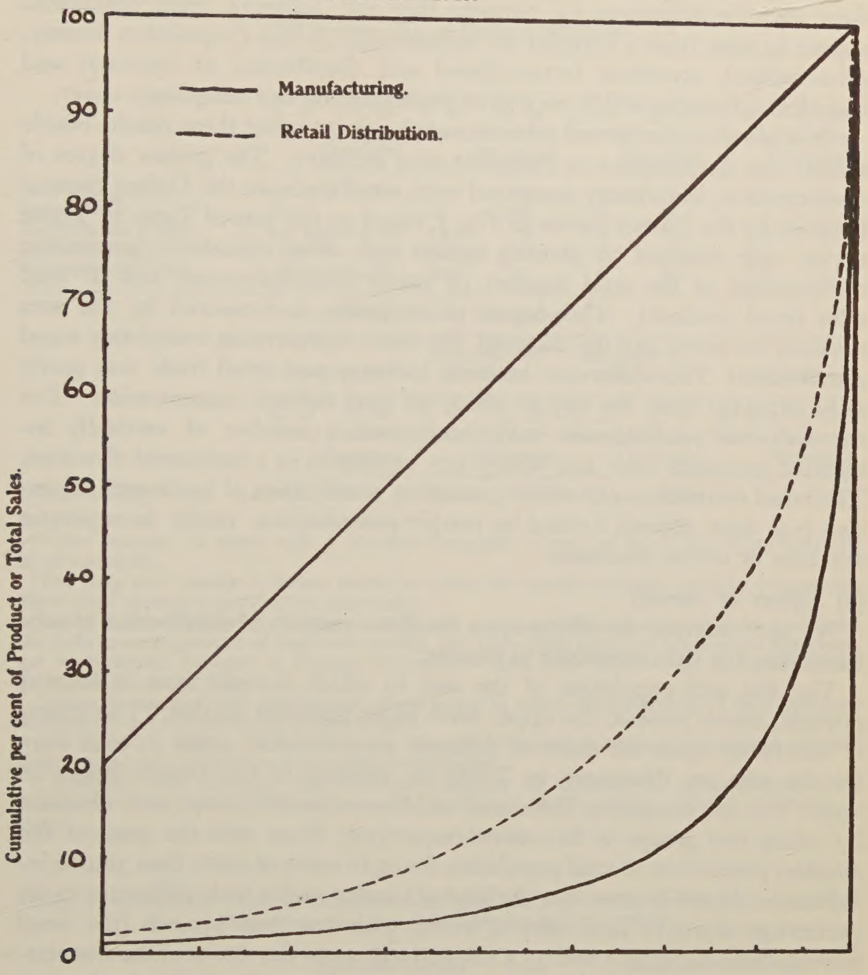
FIG. 2. DISTRIBUTION OF PERSONS OCCUPIED, BY SIZE OF ESTABLISHMENT, IN CANADA AND FIVE EUROPEAN COUNTRIES.



(Fig. 1) were obtained from Table 1, by plotting on a logarithmic scale the percentage of sales achieved by all stores of more than a certain size (measured by the annual net sales converted to 1929 U.S. gold dollars). Here the degree of inequality is shown by the steepness of the (negative) slope of the Pareto curve, while the distance of each curve from the origin gives a measure of the absolute scale of operation in each country. In Fig. 1, over the middle range of sizes (approx. $10,000 to 100,000) there is little difference between the four countries, but in the top range Canada shows a higher, and Eire a lower, degree of concentration than the United States.

For the economically less developed countries of Europe no such distributions of stores and sales can be made. It is, however, possible to measure

Fig. 3. Concentration in Manufacturing and Retail Distribution in the United States in 1929.



the extent to which occupied persons are concentrated in large establishments, the number of persons working in each establishment being taken as the measure of size. This is done by the Pareto curves of Fig. 2, based on Table 2, the concentration of occupied persons in Canada being used as a link with Fig. 1.[1] Comparison shows that on the present definition concentration in continental Europe lags behind that of Canada, and that within Europe itself there are wide differences e.g. between Italy and Germany. Such differences appear to arise from a complex of demographic factors (population density, urbanization), economic factors (level and distribution of incomes) and historical influences which no simple generalization can adequately cover.

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[1] As the percentage distribution of Persons Occupied by size of store is given in Canadian data only on a size-classification measured by Annual Net Sales, a series comparable with those of European countries was obtained by establishing a linear relation between the logarithm of size of store (Annual Net Sales) and the logarithm of Number of Persons Occupied per store. The latter was then used as a basis for measuring the size of establishments according to Number of Persons Occupied.

It is of some interest and relevance at this point to set these results beside similar size distributions in manufacturing industry. The greater degree of concentration, in industry compared with retail trade, in the United States,[1] is shown by the Lorenz curves of Fig. 3, based on the data of Table 3. These curves were obtained by plotting against each other cumulative percentage distributions of the total number of stores (establishments) and of total sales (total product). The degree of inequality is measured by the area between the curve and the diagonal, the latter representing completely equal distribution. This difference between industry and retail trade was partly to be expected from the way in which we have defined concentration. For the *industrial* establishment may incorporate a number of vertically integrated processes over and above any expansion in a horizontal direction. The *retail* establishment,[2] while possessing possibilities of horizontal expansion (e.g. dept. stores), limited by market potentialities, rarely incorporates any later or earlier processes.

(*b*) *Effects of locality*

We now examine the effects upon the above pattern of distribution of sub-classifying the data according to locality.

The size and population of the area in which a retail store is located provide, *ceteris paribus*, the upper limit to its potential market. The effects of this factor upon the share of different sizes of retail outlet in total sales for the area are illustrated in Table 4a, relating to the United States in 1929. The two categories, Urbanised and Non-urbanised areas, were obtained by taking two groups of five states[3] respectively those with the greatest and smallest proportion of total population living in cities of more than 30,000 inhabitants. It will be seen that the kind of locality makes little difference to the percentage shares in total sales of stores with less than $50,000 (the small stores), these being 35.5 and 33.4 respectively, or to the shares of the five size-groups within the range $0–50,000, which are almost identical in both areas. The significant difference appears only within the second broad group, i.e. stores with sales of more than $50,000, which in both localities account for almost the same percentage of total sales, viz. 64.5 and 66.6 respectively. Within this range, however, there is a wide difference for the two areas in the percentage shares of the two size groups $50,000—99,000 and $100,000—199,000 (the medium-sized stores) which, taken together, account for 28.7

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[1] The same conclusions also are true for Canada.

[2] *i.e.* store, as distinct from organisation. Organisations are, of course, often vertically integrated with wholesaling and manufacture.

[3] The five states comprising each group were : Urbanised area : New York, New Jersey, Rhode Island, Connecticut, and Massachusetts. Non-urbanised area : Arizona, Montana, Nevada, New Mexico, and Wyoming.

TABLE 2.—*Percentage share of Stores and Persons Occupied, by size of store, in U.S.A. and five European countries.*‡

	Size of store (No. of Persons Occupied) :—*							
	0		1—5		6—50		51+	
	% of Stores	% of Persons Occupied	% of Stores	% of Persons Occupied	% of Stores	% of Persons Occupied	% of Stores	% of Persons Occupied
Germany (1933) ...	not applicable		95	73	4	16	1	11
Italy (1927)	0.3	—	98	89	2	10	—	1
Netherlands (1930) ...	not applicable		95.9	76	4	15	0.1	9
Sweden (1931) ...	2	—	91.9	70	6	24	0.1	6
Switzerland (1929) ...	not applicable		93.8	66	6	26	0.2	8
	Size of Store (Annual Net Sales) :—							
	$0—10,000		$10,000—30,000		$30,000—300,000		$300,000+	
	% of Stores	% of Persons Occupied	% of Stores	% of Persons Occupied	% of Stores	% of Persons Occupied	% of Stores	% of Persons Occupied
U.S.A. (1929)†	61.6	31.0	26.0	24.0	12.0	30.0	0.4	15.0

* The concept 'a store with 0 Persons Occupied' does not have the same meaning in all countries.

For *Italy* and *Sweden* it means stores in which the people working (usually one person) have their principal occupation elsewhere.

In the *German* Census of Industry and Trade, persons who work alone in a store, without the help of employees or of their own family, but have their principal occupation elsewhere, are nevertheless counted as Persons Occupied ; there will therefore be no stores in the group '0 Persons Occupied'.

In the *Netherlands* and *Switzerland*, those stores in which no persons have their principal occupation are not included in the census.

† In the U.S. Census of Distribution, Persons Occupied comprises proprietors and full-time employees ; part-time employees are excluded.

‡ Sources : (for Europe) International Chamber of Commerce : Distribution in 26 countries. (For U.S.A.) Fifteenth Census of United States (1930) : Retail Distribution Part 1.

TABLE 3.—*Percentage share of Establishments and Sales, by size of Establishment, in U.S. Manufacturing and Retail Distribution in 1929.*†

Size of Establishment[1]* $	Manufacturing† Cumulative % of		Retail Distribution Cumulative % of	
	Estab.	Sales	Estab.	Sales
less than 20,000 ...	32.9	1.1	63.93	14.73
20,000— 99,999 ...	68.6	6.2	94.97	54.83
100,000—499,999 ...	89.5	20.4	99.57	81.39
500,000—999,999 ...	94.4	30.8	99.86	87.66
1,000,000 and over ...	100.0	100.0	100.00	100.00

*Value of product in Manufacturing, Annual Net Sales in Retail Distribution.

†Sources : Statistical Abstract of the United States 1932, and Fifteenth Census of the United States : Retail Distribution Part 1.

Table 4a.—*Percentage share of total sales, by size of store, in Urbanised and Non-urbanised areas in U.S.A. in 1929.*

Size of Store Annual Net Sales	Urbanised Areas			Non-urbanised Areas			All Areas		
$	Percentage share of total sales by size of store								
less than 5,000 ...	1.6	35.5		1.7	33.4		2.0	36.9	
5,000— 9,999 ...	3.3			3.0			3.7		
10,000— 19,999 ...	8.8			7.5			9.0		
20,000— 29,999 ...	8.6			7.7			8.5		
30,000— 49,999 ...	13.2			13.5			13.7		
50,000— 99,999 ...	15.9	47.8	64.5	22.1	64.0	66.6	17.8	50.7	63.0
100,000—199,999 ...	12.8			18.8			13.7		
200,000—299,999 ...	6.2			8.5			6.4		
300,000—499,999 ...	6.8			7.3			6.5		
500,000—999,999 ...	6.1			7.3			6.3		
1,000,000 and over ...	16.7	16.7		2.6	2.6		12.3	12.3	
All sizes	100.0			100.0			100.0		

* Source : Fifteenth Census of the United States (1930) : Retail Distribution Part 1.

Table 4b.—*Percentage share of total sales, by size of store, in Urbanised and Non-urbanised areas in Canada* (1930).

Size of store Annual Net Sales	Urbanised Areas	Non-urbanised Areas
$	Percentage of total sales	
less than 5,000 ...	4.4	3.3
5,000— 9,999 ...	6.7	5.8
10,000— 19,999 ...	14.1	11.8
20,000— 29,999 ...	12.0	10.0
30,000— 49,999 ...	15.0	12.9
50,000— 99,999 ...	16.1	14.9
100,000—199,999 ...	10.2	10.2
200,000 and over ...	21.5	30.5
All sizes	100.0	100.0

Source : Seventh Census of Canada (1930).

per cent of sales in urbanised areas, but 40.9 per cent in non-urbanised areas. A still wider difference appears in the share of the very large stores ($1,000,000 +), which are unimportant—2.6 per cent of sales—in non-urbanised areas, as compared with 16.7 per cent in urbanised areas.

A similar analysis can be made for Canadian data.[1] For the present purpose the nine Canadian provinces were divided into two groups[2]—Urbanised and Non-urbanised areas. For these two classes of area the percentage share of total sales obtained by each store-size is similar to that which held good in the United States (compare Tables 4a and 4b). Figures for each of the bracketed size-groups are not available for all provinces; hence detailed comparison between the United States and Canada cannot be made.

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[1] v. Seventh Census of Canada (1930).

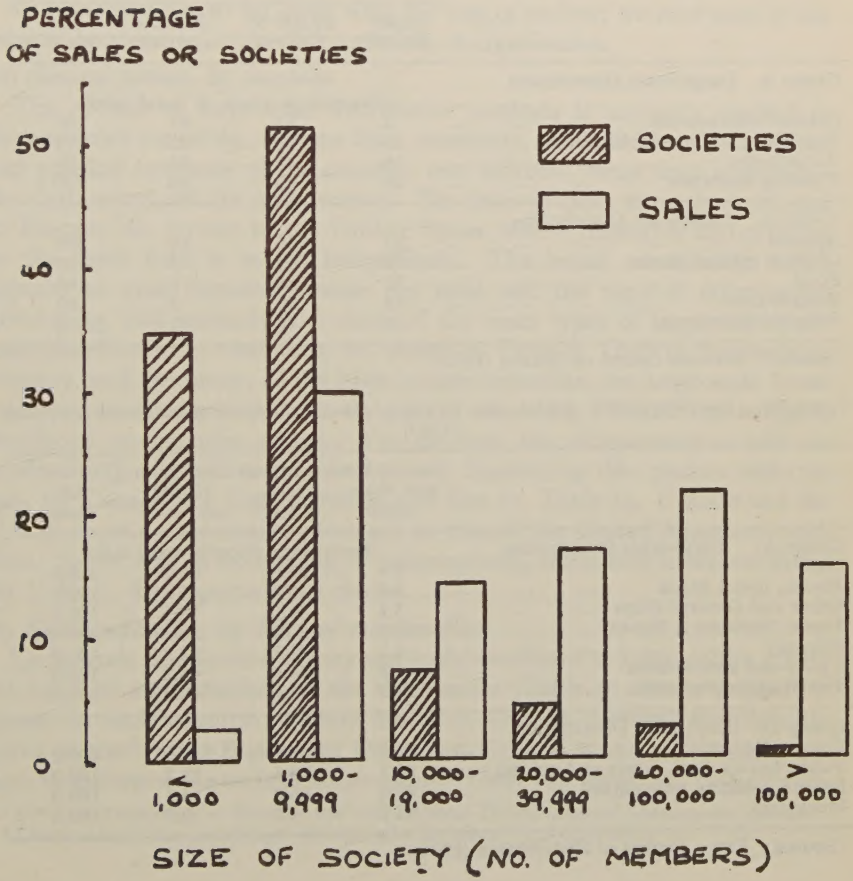
[2] The difference between the two categories is based upon the percentage of the population living in places of less than 1,000 inhabitants (43.14% for urbanised, and 70.62 % for non-urbanised), and upon the per cent living in cities of more than 30,000 inhabitants (34.53% and 13.76% respectively). The first group comprised 4 provinces, Quebec, Ontario, Manitoba, British Columbia ; the second group comprised 5 provinces, Prince Edward Island, Nova Scotia, New Brunswick, Saskatchewan, and Alberta.

TABLE 5.—*Average size of store in 6 sizes of locality in U.S.A. (1929).*

Size of locality (No. of inhabitants)		*Average* size of locality (x)	Average sizeof store (Annual Net Sales £) (y)
more than 30,000	...	150,000	41,700
10,000—30,000	...	17,500	35,300
5,000—9,999	...	6,900	32,500
2,500—4,999	...	3,600	28,600
1,000—2,499	...	1,500	24,800
less than 1,000	...	300	15,400

Source - Fifteenth Census of the United States (1930) : Retail Distribution Part 1.

Fig. 4. Concentration in U.K. Co-operative distribution : percentage share of total sales by size of Retail Co-operative Society in 1935.



On the definition so far used, the degree of urbanisation cannot be expressed numerically. In Table 5, however, the close relation between size of locality (x) and size of store (y) is established on a quantitative basis, and can be expressed by the equation :

$$y = -9.7 + 10.25 \log x.$$

It is remarkable that whereas the size of locality increases from 300 to 150,000 inhabitants between smallest and largest, or by 500 times, the size of store increases only threefold.

(*c*) *Effects of kind of merchandise*

The above-noted characteristics in the percentage distributions of stores and sales are not evenly marked in all kinds of merchandise. In the Eire data (Table 6b), we have classified the kinds of merchandise into two groups—

Table 6a.—*Percentage share of total sales by size of store in nine kinds of merchandise in Canada (1930).*

	Size of store (Annual Net Sales $)			
	under 20,000	20,000 to 199,999	200,000 and over	All sizes
Group A. Large-Scale Distribution				
... ...	Percentage share of total sales.			
General merchandise	2	13	84	100
Furniture and household goods	15	61	22	100
Automobiles	16	48	35	100
Building Materials	21	59	20	100
Group B. Small-scale Distribution				
Apparel	23	66	10	100
Country general stores	29	68	2	100
Food	35	58	7	100
Restaurants	48	56	7	100
Second-hand stores	54	48	7	100

Source : Seventh Census of Canada (1930).

Table 6b.—*Percentage share of total sales, by size of store, in 11 kinds of merchandise in Eire (1933)*

	Size of store (Annual Net Sales £)			
	less than 1,000	1,000–9,999	10,000 and over	All sizes
Group A. Large-scale Distribution	Percentage share of total sales			
Coal	4.0	29.8	66.2	100.0
Metals, metal goods	5.0	49.6	45.4	100.0
Other and General shops	5.1	41.6	53.3	100.0
Paper, Stationery, Books	5.6	36.1	58.3	100.0
Drapery	6.1	41.1	52.8	100.0
Cycles and automobiles	7.8	44.0	48.2	100.0
Hotels and restaurants	10.4	47.6	42.0	100.0
Group B. Small-scale Distribution				
Drugs (chemists)	12.8	78.6	6.6	100.0
Public-houses (incl. wines and spirits) ...	23.7	65.1	11.2	100.0
Sweets, tobacco, newspapers	29.6	66.3	4.1	100.0
Hucksters	95.9	4.1	0.0	100.0

Source : Eire : Census of Distribution (1933).

Group A. Large-scale distribution, where the largest size of store accounts for a major share of total sales, and Group B. Small-scale distribution, where the share obtained by this same size of store is insignificant. Comparing Canada with Eire, we find some common features : in the ' General Merchandise Group ' (Canada) and ' Other and General Stores ' (Eire) the larger stores predominate in importance. Both types include Department Stores, which, as has been noted earlier, have a very high average size of outlet. On the other hand ' Drapery ' (Eire) is large-scale, while ' Apparel ' (Canada) is small-scale.

Knowledge of the dispersion around the average size of store in each size group would have enabled us to see how far there is in fact a typical size for particular kinds of merchandise, determined perhaps by locational upper limits to size in the case of 'convenience goods '[1] stores, and by large capital requirements in the case of ' shopping goods'. Unfortunately no such data are to hand.

2. Concentration According to Size of Organisation

Our concern has so far been with the size of outlets; we now turn to the relative importance of the different sizes of organisation.

(*a*) *General picture, by countries.*

The growth of large-scale distributive methods is unevenly marked in the countries for which we have data; moreover, conditional upon the social and political structure of the country, two different forms have emerged—the chain-store and the co-operative. The latter is more strongly developed in Europe, the former in the United States, where consumer co-operation in the retail field is as yet insignificant. The broad relationship which appears to exist between income per head and the type of organisation developing, and secondly, the share of the main types of large and small-scale distribution in total sales, are shown in Table 7. Only in Switzerland, Norway, and Germany, of the high-income countries, are large-scale forms relatively under-developed; of the poorer countries, Finland has a highly developed co-operative system. For the rest, the independent is still the predominating influence in distribution. Combining this picture with the data for Canada, the United States, and Eire (v. Table 8), Canada and the U.S.A. show a very similar structure to that of the United Kingdom, with about 70 per cent of sales going to independents, while Eire is ranked below the U.K. in the importance of chains.

(*b*) *Subclassification, by kind of merchandise.*

Large-scale distribution is very unevenly developed as between the different kinds of merchandise. In the three series (Table 9) certain similarities appear in each country. Variety stores in Canada, General Merchandise stores in the United States, and Other and General stores in Eire, all rank close to the top of the scale of chain-ratios.[2] These represent the non-special-

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[1] For this distinction v. Braithwaite and Dobbs : Distribution of Consumable Goods.

[2] Chain-ratio is the percentage of total sales obtained by chain-stores.

TABLE 7

Type of Retail Distribution and Income per head in 15 European countries in 1929.

Type of Distribution	Country	Income per head *	Co-operatives	Dept. Stores	Chain-Stores	Independents
			Percentage share of total sales			
A. Co-operatives and Private chains definitely developing.	Holland	279	5.0	8.0	4—8	79—83
	U.K.	267	8.2	3.5–4.5	13—15	72—76
	Denmark	195	9.8	N.A.	N.A.	90—95
	Germany (1928)	181	3.95	4.4	1.0	89—91
	Belgium	151	9.0	N.A.	N.A.	85—90
B. Private chains definitely developed. Co-operatives showing less headway.	France	171	0.73	5.3–6.3	4.8–5.5	86—89
C. Co-operatives developed. Private chains showing less headway.	Switzerland	250	5.6	N.A.	1.0–1.4	91—95
	Sweden	187	7.9	1.8	1.1–1.5	87—89
	Austria	113	2.85	—	0.5–1.0	95—97
	Czecho-Slovakia	110	3.1	—	0.9	94—96
	Italy	101	2.1	N.A.	N.A.	94—98
D. Co-operatives developed. Private chains negligible.	Norway	215	4.8	N.A.	N.A.	90—95
	Finland	81	31.9	N.A.	N.A.	65—69
	Poland	54	0.5	N.A.	N.A.	98–99.5
E. Little large-scale distribution discovered.	Spain	122	0.6	0.5–1.5	N.A.	97.5–99

Source : International Chamber of Commerce : Trends in the organisation and methods of distribution in Europe and the United States.

* In U.S. $ of 1913.

TABLE 8.—*Percentage share of total sales by chains and independents in the United States, Canada, and Eire.*

Percentage of total sales by :	*U.S.A.* (1929)	*Canada* (1930)	*Eire* (1933)
Independents	71.93	70.44	79.1
Chains	28.07	29.56	20.9

Source : Fifteenth Census of the United States. Seventh Census of Canada. Eire : Census of Distribution (1933).

ised Department Stores. Food stores, and Household Appliances stores both rank high in all three cases. In Canada and the United States, Drug stores and Restaurants receive a low position.

Evidence of concentration within the sector of large-scale distribution itself is provided firstly by a sample of chain stores investigated by the United States Federal Trade Commission,[1] whose findings form the basis for Table 10. In two kinds of merchandise viz. Grocery and meat, and Dry goods and apparel, the largest size of chain-store company (controlling more

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[1] United States Federal Commission on Chain Stores, Document 156.

TABLE 9. *Percentage share of total sales by chain-stores in different kinds of merchandise in the United States, Canada, and Eire.*

Canada (*1930*)	Percentage of total sales obtained by chain-stores
Variety, 5 and 10c. and up to $1 stores	93.60
Office and store mechanical appliances and typewriters ...	73.40
Household appliances stores	58.31
Combination stores (grocery and meats)	33.21
Grocery stores (without meats)	28.53
Filling stations	24.79
Shoe stores	22.58
Drug stores	18.57
Restaurants, cafeterias, eating places	18.50
Women's apparel and accessories stores	15.84
Men's clothing, etc.	14.29
United States (*1929*)	
Household appliances	50.5
Shoe stores	45.7
General merchandise stores	33.5
Food stores	29.0
Apparel stores	28.2
Furniture and household goods	20.3
Radio stores	20.0
Lumber and building	18.6
Drug stores	18.5
Automobile stores	14.3
Restaurants	14.1
Jewellery stores	6.7
Eire (*1933*)	
Other and General stores	26.8
Grocery and provision stores	22.5
Drapery stores	20.5
Public-house (including wines and spirits)	14.0
Public-house and grocery combined	13.3

Sources: Fifteenth Census of the United States (1930) Retail Distribution Pt. 1. Seventh Census of Canada (1930). Eire: Census of Distribution (1933).

than 1,000 stores) obtains three-quarters of total sales. In two other kinds of merchandise the largest chain companies operating in the respective fields obtain about half of all sales. Only in the department store field, where the individual stores are anyway very large, are the small chains important.

Within the Co-operative sector also, a large proportion of all business goes to a few large societies (Table 11).

(*c*) *Effects of locality upon the share of total sales obtained by different types of operation.*

Large distributive organisations obtain a larger proportion of the total sales of an area where that area is densely populated. Tables 12a (for Canada and the United States), and 12b (for Europe) indicate the diminishing importance of the independent single-store retailer in the larger cities as compared with his position in rural areas.

B. TRENDS IN CONCENTRATION

We now consider the development over time in this process of concentration, proceeding, as before, on a classification of retail outlets firstly according

TABLE 10.—*Percentage share of chains and sales, by size of chain, in 5 kinds of merchandise —U.S.A. (1928)*

Kind of Merchandise	*Number of Stores per Chain* *2–5*	*6–10*	*11–25*	*26–50*	*51–100*	*101–500*	*501–1000*	*1000+*	*All Sizes*
1. *Grocery and Meat:*									
Per cent of chains ...	48.1	23.5	12.3	2.5	4.9	4.9	—	3.7	100.0
„ stores ...	1.4	1.4	1.7	0.8	2.8	8.5	—	83.4	100.0
„ sales ...	3.0	4.2	3.1	0.9	6.8	6.4	—	75.5	100.0
2. *Variety $1 limit:*									
Per cent of chains ...	46.5	18.6	7.0	14.0	2.3	7.0	2.3	2.3	100.0
„ stores ...	1.6	1.8	1.4	6.3	2.2	19.5	16.4	50.8	100.0
„ sales ...	0.5	0.4	0.9	2.3	2.4	25.6	24.6	43.3	100.0
3. *Men's and Women's Shoes:*									
Per cent of chains ...	57.0	16.3	15.1	3.5	4.7	3.5	—	—	100.0
„ stores ...	10.3	5.8	11.2	7.5	17.7	47.5	—	—	100.0
„ sales ...	18.5	8.1	6.5	7,8	17.6	41.6	—	—	100.0
4. *Dry Goods and Apparel:*									
Per cent of chains ...	70.1	22.4	4.5	1.5	—	—	—	1.5	100.0
„ stores ...	11.7	8.1	4.3	2.2	—	—	—	73.7	100.0
„ sales ...	9.0	4.1	3.4	0.6	—	—	—	82.9	100.0
5. *Department Stores:*									
Per cent of chains ...	65.2	21.7	8.7	—	—	4.3	—	—	100.0
„ stores ...	35.1	22.3	21.6	—	—	20.9	—	—	100.0
„ sales ...	23.6	54.8	12.5	—	—	9.1	—	—	100.0

Source: Federal Trade Commission on Chain Stores, Document 156.

TABLE 11.—*Percentage share of Number of Societies and of Total Sales, by size of Society, in U.K. Retail Co-operatives (1935)*

Size of Society (No. of members)	% of No. of Societies	% of Total Sales
less than 1,000	34.7	2.5
1,001— 1,0000	51.4	29.7
10,001— 20,000	7.0	14.1
20,001— 40,000	4.1	16.9
40,001—100,000	2.3	21.5
more than 100,000	0.5	15.3
All sizes	100.0	100.0

Source: Co-operative Statistics (U.K.) 1935.

to their size (i.e. technical unit), and secondly according to the type of operation (or size of financial unit).

(1) *Trends in technical concentration.*

For all countries except the United States no time series are available of the percentage distribution of stores and sales by size of store. For the U.S.A. such a series can be constructed for the years 1927, 1929, 1933, 1935, and 1939 ; the distributions so obtained are given in Table 13,[1] and the changes in concentration expressed diagrammatically in the family of Lorenz curves (Fig. 5). The degree of concentration of sales appears to have fallen

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[1] 1927 and 1939 only ; 1929, 1933 and 1935 are given in Table 1.

TABLE 12A.—*Percentage share of total sales, by type of operation, in four sizes of locality in the United States and Canada*

Type of operation	Size of locality :				
	Cities of more than 30,000 people	Cities 10,000–30,000 people	Towns* and Villages	Combined Rural Areas	Change in % share from large to small localities
	Percentage of total sales				
1-store independents :†					
U.S.A.	65.84	71.88	83.67		Increasing
Canada	66.20	69.36	75.18	82.28	Increasing
2-store independents :					
U.S.A.	7.40	6.60	3.57		Decreasing
Canada	6.07	5.52	5.32	4.14	Decreasing
3-store independents :					
U.S.A.	3.29	2.51	1.17		Decreasing
Canada	2.94	1.21	2.17	1.84	Doubtful
Chain-stores : ‡					
U.S.A.	23.47	19.01	11.59		Decreasing
Canada	24.57	23.36	16.43	9.07	Decreasing

Source : Fifteenth Census of the United States : Retail Distribution Part 1. Seventh Census of Canada.

* In the Canadian Census, Towns and Villages comprise all places of 1,000—10,000 inhabitants ; Combined Rural Areas comprise all places of less than 1,000 inhabitants. In the U.S. Census, these two sizes of locality are grouped together as places of less than 10,000 inhabitants.

† For the U.S.A. this includes also ' Other types ' (mainly Country Buyers, Itinerant Vendors, Roadside Markets, etc.) ; for Canada it includes also ' 1-store independents in voluntary chains ' (a voluntary chain is an organisation of independents for joint buying and advertising), and House-to-house selling.

‡ 4 or more stores under the same ownership, and engaged in similar kinds of activity, comprise a chain ; chain-stores listed above include local, provincial, sectional, national chains (according to their area of operation), and manufacturer-controlled chains.

TABLE 12B.—*Percentage share of total sales, by type of operation, in cities and rural areas of 5 European countries*

Country	Percentage of popn. in cities of more than 100,000	Percentage of total sales by :—	
		Co-operatives, Dept. stores and Chain-stores	Independents
U.K.	39.1	26.2	73.8
Germany ...	30.5	9.35	90.65
Holland... ...	27.7	19.1	81.0
France	15.4	11.63	87.5
Sweden	13.6	11.0	88.0

Source : International Chamber of Commerce : Trends in the organisation and methods of distribution in Europe and U.S.A. (1931).

TABLE 13. *Cumulative percentage share of total stores and sales by size of store (U.S.A. 1927 and 1939)*

	1927			1939	
Size of Store	Cum. % of Stores	Cum. % of Sales	Size of Store	Cum. % of Stores	Cum. % of Sales
(Annual net Sales) $			(Annual net Sales) $		
less than 5,000	28.3	1.6	less than 10,000	54.17	9.09
5,000— 9,999	46.6	5.1	10,000— 19,999	75.67	22.11
10,000— 24,999	74.7	16.8	20,000— 29,999	83.66	30.35
25,000— 49,999	88.3	29.4	30,000— 49,999	91.19	41.42
50,000— 99,999	94.7	40.9	50,000— 99,999	96.46	57.64
100,000—249,999	97.7	53.4	100,000—299,999	99.29	76.56
250,000—499,999	98.9	63.3	300,000 and over	100.00	100.00
500,000—999,999	99.6	71.6			
1,000,000 and over	100.0	100.0			

Sources: United States Trial Census of Distribution in 11 cities (1927).
Census of United States (1939).

sharply from 1927 to 1929, and to have risen slowly but steadily over the depression. It should, however, be noted that while the data for 1929, 1933, 1935 and 1939 are all based upon a complete Census of Distribution, the 1927 figures depend upon a Trial Census in only 11 cities, where the degree of concentration was likely to be higher.[1] The 1927 figures we shall therefore regard as unreliable. The remaining four years provide a series extending over 10 years, a period too short for the satisfactory elimination of cyclical variations and the determination of trend. Nevertheless it is noticeable that while the increase in the degree of concentration from 1929 to 1933 accompanied a fall in total retail sales from $48,459 million to $24,577 million (a change of—49.4 per cent), the increase of concentration in 1935 over 1933 accompanied a rise in retail sales of 33.7 per cent to $32,792 million. From 1935 to 1939 retail sales grew to $42,042 million (an increase of 28.5 per cent over 1935); during this period the degree of concentration[2] fell, though not back to the 1929 level, despite the fact that sales had almost returned to their 1929 peak. The cyclical movement is strong, but no definite conclusion can be reached as to trend.

(2) *Changing concentration according to size of financial organisation.*

'It is estimated that from 1921 to 1927 the retail sales of all chain stores have increased from approximately 4 per cent to 16 per cent of total retail sales.

'There are estimated to be less than 4,000 chain systems with more than 100,000 stores; many of these chains operate from 100 to several thousand stores.

'There have been numerous consolidations of chain-stores throughout the history of the movement, and particularly in the last few years.

'These chain-stores now control a substantial proportion of the distribution of certain commodities in certain cities, and are rapidly—increasing this proportion in these and other cities, and are beginning to extend this system of merchandising into country districts as well.'

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[1] v. above—the effects of locality.

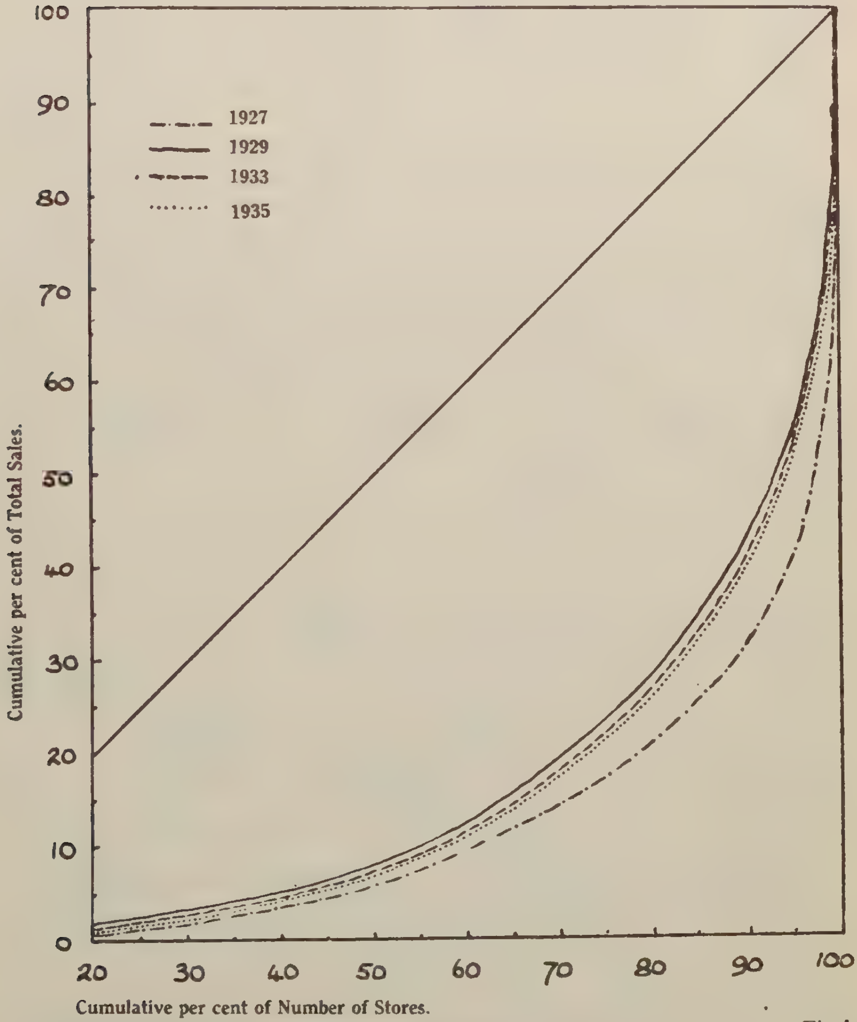
[2] The 1939 curve is not shown in Fig. 5; it would lie between the 1929 and 1933 curves.

This picture[1] of the growth of large-scale distributive organisations in the United States forms a convenient summary of the developments which are considered in more detail in the following paragraphs.

(*a*) *The increasing share of the chain-store sector.*

Though vertical integration has played some part in retail trade, notably

Fig. 5. Concentration in U.S. Retail Distribution 1927--1935.



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[1] Contained in the terms of reference of the Federal Commission on Chain Stores. v. Final Report Document 4.

Fig. 6. Indices of Chain-store sales and total retail sales in the United States 1909—1943.

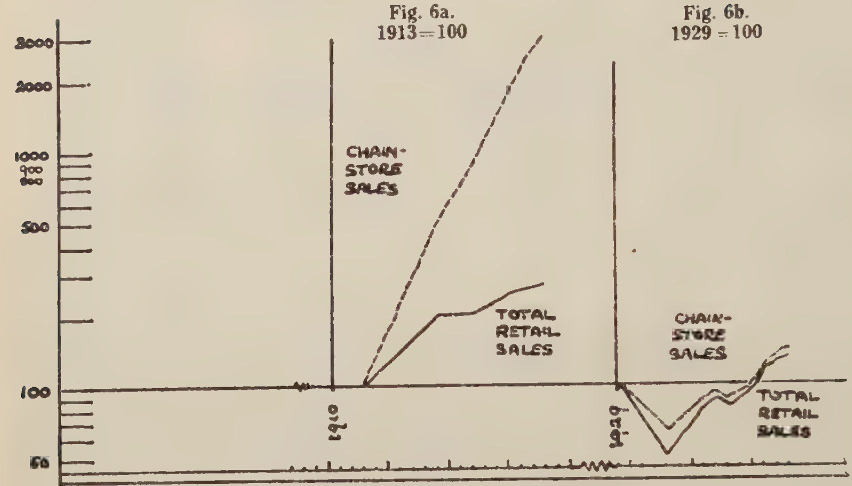
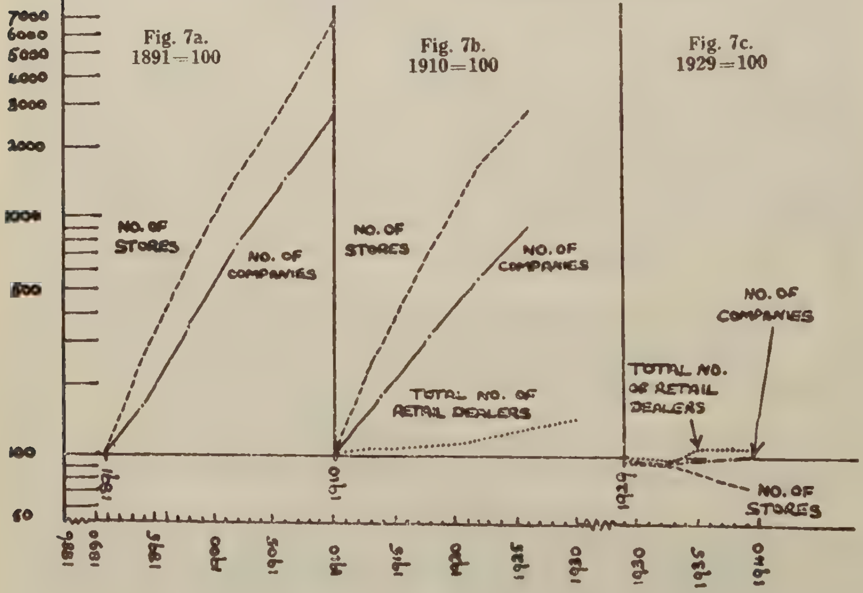


Fig. 7. Indices of No. of Retail Dealers and No.s of Chain-stores and Chain-store companies in the United States 1886—1939.



Cumulative per cent of Chain-stores.

in the development of manufacturer-controlled and wholesaler controlled chains on the one hand, and co-operative[1] wholesaling and manufacture on the other, the integrative movement most prominent in this field has been horizontal. We begin, therefore, by examining the changing share of chain-stores in total retail trade.

The relative rates of expansion, in terms of the number of outlets, of retail business as a whole, and of chains, are shown in Figs. 6—7.

The number of Retail Dealers,[2] as given by the Occupational classification in the Census of Population of 1910, 1920, and 1930, has increased relatively little over 20 years (just faster than the increase in population)[3] (Fig. 7b).

From 1929 onwards the number of Retail dealers is regarded as given with sufficient accuracy by the number of retail stores.[4] Since this is a different classification from that of the Census of Population, a new series is begun at 1929 (Fig. 7c).

For Figs. 7a and 7b, the number of chain-stores and companies is based upon continuous data for a sample of chain-store companies,[5] which in 1929 were responsible for sales of $5,693 million out of total chain sales for that year of $10,412 million. Both series are nine-year moving averages. In Fig. 7c the number of chain-stores and companies represents all those covered by Census data;[6] this series is uncorrected for cyclical fluctuations.

From Fig. 7 certain trends are clearly observable. In the first period (1886–1914) and the second (1906–1929) the rate of chain growth was extremely rapid compared with the growth of retail business as a whole. The number of chain-*stores* grew slightly more rapidly than in the second period than the first (except for the four years 1922–26), while the number of *companies* grew less rapidly. That is, in the first period the expansion was achieved mainly by the growth of new companies, while in the second it resulted more from the growth of existing companies, both by acquisitions of existing stores and by new openings.

From 1929 onwards the progress is very different.[7] The number of Retail Dealers and the number of chain store *companies* both fell with the depression and recovered by 1939, the former actually increasing above the 1929 level. The number of chain-*stores*, however, fell likewise from 1929 to 1933, but instead of recovering, continued to fall at an even faster rate over the period 1933–39. Since chain-store sales had recovered their 1929 level by 1937 and continued to expand until 1939, the average sales per store rose considerably.

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[1] Co-operative used in its wider sense of joint action.

[2] Includes also managers and superintendents of retail stores.

[3]

	1910	1920	1930
Retail Dealers	1.195m (100)	1.328m (112)	1.704m (143)
Population	92.0m (100)	105.7m (115)	122.3m (133)

[4] v. Fifteenth Census of U.S., and Census of Business, 1933, 1935.

[5] Federal Commission on Chain Stores Document 40.

[6] v. Survey of Current Business February 1944.

[7] Allowance must be made for the difference in coverage; the sample on which the series of Figs. 7a and 7b were based was originally recruited by mailed questionnaire, to which unsuccessful firms may have been less disposed to reply. It did, however, cover more than half of total chain sales in 1929.

The relative growth of chain[1] and total retail *sales*[2] (Fig. 6a and 6b), confirm the above picture of the growth of *stores*. The chain-store sample shows an almost constant annual percentage increase over the years 1913–26. Fig. 6b, which represents data for all chain-stores covered by the Census, and which is uncorrected for cyclical fluctuations, shows that chain sales fell less violently, and recovered more quickly, than total retail sales over the decade 1929–39.

Much supporting evidence could be adduced to establish further the increasing share of chains in total sales, at least up to 1930. Another independent estimate[3] gives the following chain-ratios for the United States:

1923, 6 per cent; 1926, 8 per cent; 1927, 12 per cent; 1929, 18 per cent.

Until 1929 there appears to be no evidence that the expansion of chains was tapering off to a maximum. Since 1929, however, the continuance of this upward trend in chain ratio is doubtful. In Fig. 8 is shown the share of the five leading food chains in total food sales over the period 1919–1939.[4] Until 1929 the trend (9-year moving average) is almost linear. After 1929 the percentage share reaches a maximum in 1933 and begins to decrease. The trend is not evenly marked among all five chains, one of which maintains an absolute increase in sales over the whole period. It is, of course, possible that these are not entirely representative chains, or that others were superseding them, so that the share of chains as a whole in the food sector would show continuous expansion.

A series of chain-ratios for all chains in the United States 1929–1943[5] is given below:

1929	21.5	1936	23.4	1939	22.8	1942	24.4
1933	27.0	1937	22.4	1940	22.4	1943	23.1
1935	24.5	1938	23.3	1941	22.4		

This series shows a very slight downward trend, which should be accepted only with great reservation; for the period is short, being little longer than a cycle; the downward trend is very small; and finally, it is noticeable that, excluding the war years, which are likely to be exceptional, the chain ratio appears to be inversely correlated with the volume of retail sales, and the developing downward movement of retail sales, which began in 1938, was halted and reversed by the war.[6]

It may therefore be concluded, with some caution, that this particular form of concentration (i.e. horizontal integration of similar technical units) has come to a standstill, after a period of very rapid expansion up to 1930.

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[1] Federal Commission op. cit. Document 40.

[2] Estimate by National Bureau of Economic Research (in International Chamber of Commerce op. cit. 1931).

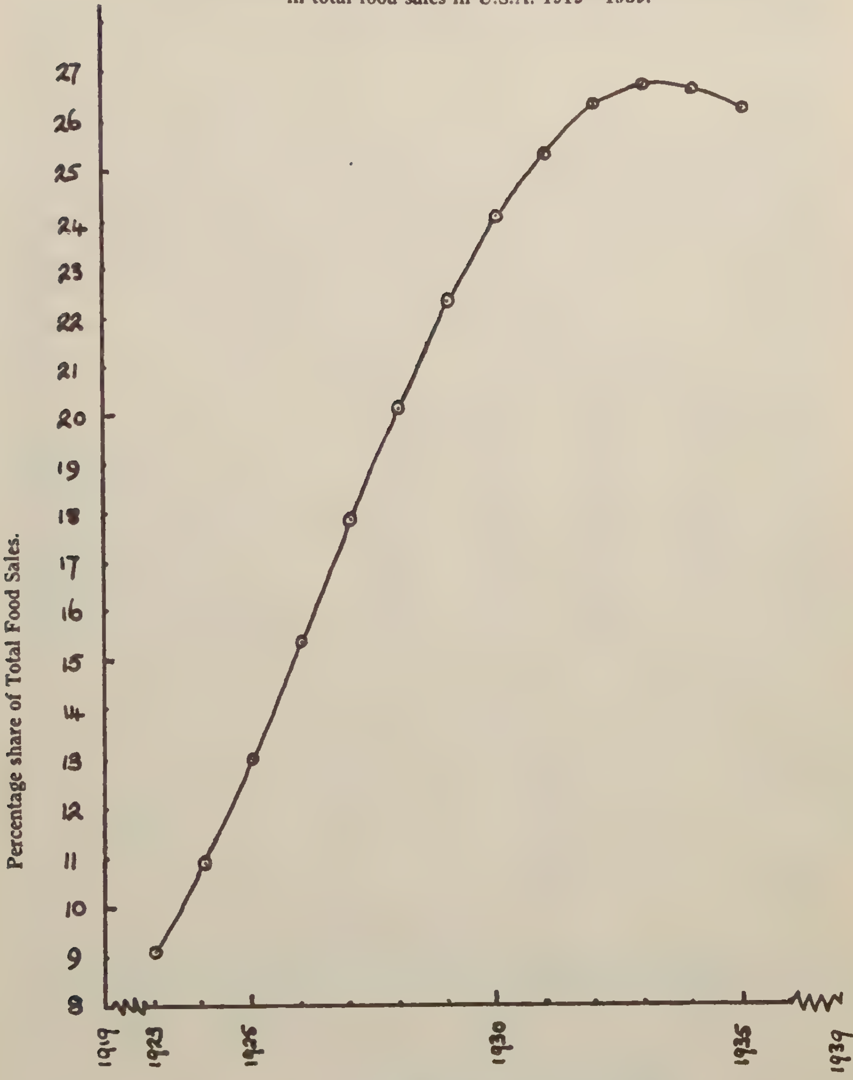
[3] International Chamber of Commerce op. cit.

[4] For 1919–35 this Table is based upon T.N.E.C. Investigation into the concentration of economic power Monograph 35. Data for the same five companies after 1935 appear in Financial and Commercial Chronicle 1938, 1939, 1940.

[5] Survey of Current Business February 1944. It will be noted that the figure given here for chain-ratio in 1929 is somewhat greater than the previous estimate.

[6] In war-time the call-up etc. hits independents more than chains, and the chain ratio increases even in a period of expansion.

Fig. 8. Percentage share of five leading chain-store companies in total food sales in U.S.A. 1919 - 1939.



But during these years after 1930 the chains followed a policy of expansion into the manufacturing field, and at the same time other integrated forms began to develop, notably voluntary chains of independent retailers, co-operatives,[1] supermarkets,[2] and manufacturer-controlled retail outlets.

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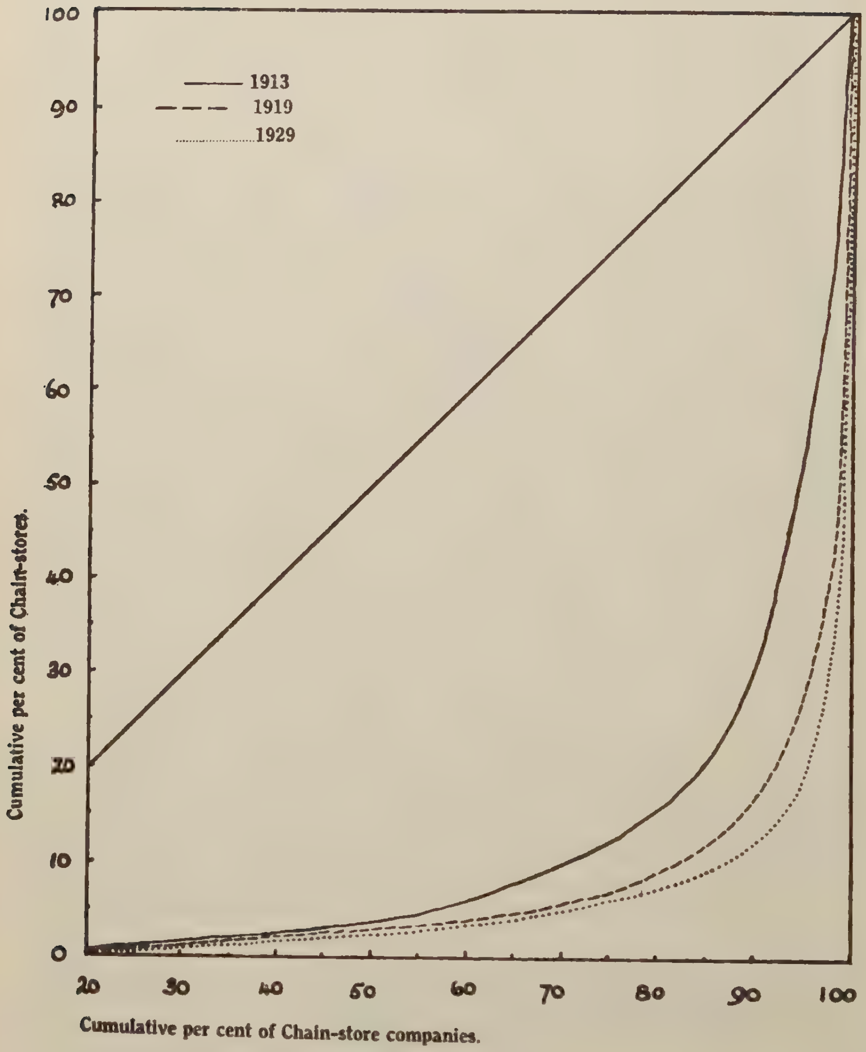
[1] Though still insignificant in the United States.

[2] This represents an attempt by the larger independents to achieve technical economies of scale by operating a single large unit, and selling at low prices obtained by eliminating all selling costs.

Fig. 9. Concentration of store ownership by size of company in the United States in 1913, 1919, and 1929.



(b) Concentration within the chain sector.

In the sample of chain-store companies investigated by the Federal Chain Commission, the ownership of stores became concentrated into fewer hands over the period 1913–1929 (Fig. 9).[1] The same held true for sales also, which were increasingly concentrated in a small percentage of the companies.

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[1] Federal Trade Commission op. cit. Document 100.

So far as the relationship between percentage of stores and percentage of sales is concerned, the smallest and largest stores both appear to have lost ground. But the degree of inequality (as measured by cumulative percentage distributions of stores and sales) is notably smaller here in the chain sector than for retail trade as a whole.

(*c*) *Business discontinuances in relation to size of store and organisation.*

In Table 14, the average size of store in Eire is shown which corresponds to various lengths of life. In five kinds of merchandise there is unquestionably positive correlation between the two variables. In four kinds of merchandise the same relationship appears with less certainty, and in only one case (public-houses) is it contra-indicated.

TABLE 14 *Size and length of life of retail stores in 9 kinds of merchandise.* (*Eire—1933*)

Kind of Merchandise	All ages	Age of business: 5 years	5—9 years	10—19 years	20+ years
	Size (Annual net sales £) in each age category:				
Sweets, Tobacco, Newspapers ...	738	660	776	757	841
Public House	1,028	1,030	1,192	1,014	920
Grocery and Provisions	1,262	843	1,178	1,351	1,994
Fresh meat	1,582	1,329	1,888	1,611	1,820
Public House and Grocery ...	1,732	1,457	1,632	1,826	1,863
Hotels and Restaurants ...	2,238	1,321	2,077	2,204	4,031
Cycle and Automobile	2,629	2,015	2,367	3,105	4,754
Drapery	3,347	2,184	2,417	3,112	6,593
Other and General Shops ...	3,704	3,416	2,215	3,556	6,194

Source: Eire Census of Distribution (1933).

TABLE 15 *Percentage of liquidations by size of store, U.S.A. 1940–1942*

Size of Store (No. of employees)	(1) Liquidations July 1940—June 1942	(2) No. of stores operating in 1939	(3) = (1) as % of (2)
1—3	45,370	423,796	10.6
4—7	8,602	118,074	7.3
8—19	4,597	51,580	8.9
20—49	1,428	14,915	9.6
50 and over	328	8,078	4.1
All sizes	60,325	621,443	9.7

Source: Survey of Current Business, November, 1943.

In Table 15 we examine the percentage of liquidations of stores classified by the number of their employees. None of the values in Col. (3) for the various size groups could have arisen purely from sampling fluctuations.[1] The results are somewhat biassed by the uneven incidence of war-time burdens on small and large stores; but this factor, though important for stores of the smallest size (which will include the owner-operated stores), does not account for the differences between the large size-groups, and especially for the behaviour of the largest size of store.

A comparison for 1918–1928 of independents and chains in the grocery, hardware, and shoe fields shows that the rate of opening of new stores by independents is almost exactly counter-balanced by their closing rate, while the chain closing rate is only one quarter of chain opening rate.[1]

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[1] Limits for the expected percentage of liquidations in any random sample of stores drawn from a population whose average percentage liquidation was 9.7, would be 9.66 and 9.74. The values obtained by all size groups lie outside those limits.

C. SUMMARY

1. THE PRESENT PATTERN OF RETAIL DISTRIBUTION

Firstly, the technical concentration in retail trade (as measured by comparing percentage distributions of stores and sales, by size of store) is examined with regard to differences of country, locality, and kind of merchandise. In all countries the degree of concentration is considerable, though less pronounced than in manufacturing industry. Variations between countries and localities are related to the extent of urbanisation and the level of incomes. Variations between different kinds of merchandise show some regularity between countries; concentration appears to be greater in the field of ' shopping goods ' (e.g. department stores).

Secondly, the degree of financial concentration is measured by the share in total retail trade of large-scale organisations—chain-stores, co-operatives—with regard to the effects of the three same factors viz. country, locality, and kind of merchandise. Between countries, historical influences, outside the scope of this article, must be integrated into the pattern of development produced by locality and income; their effects are particularly noticeable in the widely different shares obtained by co-operatives in the U.K. and the United States. Inside a given country, however, the share of trade obtained by the larger organisations is considerably greater in urbanised localities. While there are some similarities between countries in the kinds of merchandise where chains are prominent, no simple, regular pattern emerges.

2. THE GROWTH OF LARGE-SCALE DISTRIBUTION.

Data of changes in technical concentration cover too short a period to be conclusive. In the United States (1929–1939) no clear trend is observable, though there is a marked cyclical rise in concentration in the slump.

The rapid development of chain-stores, on the other hand, and the narrowing of control within the chain sector, are both very pronounced until 1930; since then the trend is confused by very violent cyclical movements and war.

This study of developments in distribution is completed by evidence of the relation between size and the power to survive; the mortality rate among large stores and organisations is considerably less than among their smaller competitors.

3. CONCLUSION

The growth of large-scale distribution indicates the existence of advantages for the large technical or financial unit, which facilitate their survival or expansion. We are naturally led to an examination of these advantages from the standpoint of the retail trader and of the consumer. The treatment of these aspects forms the subject of the two subsequent articles.

R. BELLAMY.

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[1] Federal commission, op. cit., Document 40.

FRENCH RECONSTRUCTION AND THE FRANCO-U.S. LOAN AGREEMENT. PART I

1. THE BACKGROUND

In a previous paper[1] the French position after the liberation from Nazi occupation was analysed. The economic situation of the country was unfavourable, yet, at the same time, held out high hopes for a relatively quick recovery.

As a result of the hostilities in 1944 and 1945; of the extreme shortage of manpower, due to the deportations to Germany and, even more, to the large-scale mobilisation in the French Forces of the Interior and subsequently in the regular Army by General de Gaulle; and of the shortage of fuel, raw materials, etc., the national income of the country was at an extremely low level.

TABLE I

*Disposable goods and services**

(In millions of 1938 francs)

	1929	1938†	1945
Income :—			
Gross national product ...	485,000	430,000	250,000
Imports ...	60,000	40,000	55,000
Total ...	545,000	470,000	305,000
Expenditure :—			
Consumption ...	390,000	368,000	246,000
Maintenance of capital equipment ...	55,000	50,000	45,000
New productive investment ...	12,000‖	10,000	4,000‡
Exports ...	60,000	32,000	3,000
Armaments ...	28,000§	10,000	7,000
Total ...	485,000	470,000	305,000

* Estimate of the Planning Commission. The national income figures are vitiated by the pp. 16 and 17.
uncertain treatment of the foreign balance and of the budgetary expenditure. Documents,

† The distribution of the net national product in 1938 between occupations was as follows :

Agriculture ...	80,000
Industry ...	150,000
Transport ...	26,000
Commerce and Finance ...	70,000
Professions ...	13,000
House-rent ...	15,000
Domestic service ...	6,000
Public Service ...	20,000
	380,000

Source : *Documents*, p. 18.

‡ Incl. + 15,000 stocks and − 10,000 equipment.

‖ Buildings only. § Industrial equipment and armaments together.

But the productive machinery of the country was largely intact. The bombing attacks of the Allies on factories had proved to be largely unsuccessful, and the Germans, in their turn, had to evacuate the country so rapidly as to be unable to inflict serious damage except perhaps in the Alsatian potash and bauxite fields. At that moment transport was the most serious bottleneck. The Germans had taken away a considerable number of locomotives and rolling stock when they were thrown out. Once the bridges were restored and some of the rolling stock returned to France, port facilities and fuel were likely to be the next most severe bottlenecks, with manpower a menacing ultimate barrier to an increase in production.

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[1] Cf. BULLETIN of the Institute of Statistics, 1945, Vol. 7, No. 4.

2. The Progress in French Reconstruction

The French initiated a reconstruction programme in 1945 which, despite continued unsettlement, achieved remarkable results. The help received from abroad was of some importance in certain difficult sectors. British temporary credits (now partly paid) amounted to £150 millions or $600 millions. The United States granted a loan of $550 millions through the Export Import Bank. And 'pipe-line' supplies of $410 millions were delivered after Lend Lease and Mutual Aid had come to an end. Altogether foreign help amounted to more than $1600 millions.

In all classes of goods, French imports remained extremely scanty in the first half of the year. The end of the war relieved the shipping shortage. Imports in the second half, however, remained substantially below pre-war levels although they were rising.

TABLE II.*—*Imports 1945*† *Compared with pre-war Figures*
(In '000 metric tons)

	1920 (Beginning of the Re-construction.)	*1929* (Maximum Activity)	*1938* (Curtailed Activity)	*1945*
Foodstuffs :— of which	*6,195*	*6,727*	*5,846*	*1,489*
Cereals, etc.	3,584	2,545	1,394	853
Meat, fish, preserves	377	323	132	63
Sugar	626	527	316	188
Raw material :— of which	*41,877*	*50,604*	*39,663*	*9,881*
Pit-coal	30,125	30,905	22,100	5,188
Liquid fuel	1,112	3,036	8,133	1,582
Iron and steel products	1,030	221	78	528
Non-ferrous metals	204	315	214	155
Rubber	26	73	68	18
Textiles	502	965	689	391
Manufactured Products :— ... of which	*2,464*	*2,115*	*1,645*	*472*
Capital equipment	680	515	157	‡162
Total tonnage ...	50,536	59,446	47,154	11,842

*Données statistiques sur la situation de la France, March 1946. Table XXI.
†Imports from foreign markets rather than from French overseas possessions.
‡Of which 88,500 tons of machinery is reserved for communication services.

The decisive importance of the shortage of coal is best shown by the fact that the index of production moves in closest correlation with the coal quotas granted to industry, which rose from less than 10 per cent of 1938 in September 1944, to 55 per cent in October 1945, to fall back below 40 per cent in December 1945. The output of industries using mainly home produced raw materials had reached 70 per cent of 1938 while the general index was just above 60 per cent and industries finishing foreign raw materials reached about 55 per cent.[1]

TABLE IIIA

Industrial Production and Construction

	1938	*Aug., Sept. 1944*	*Beginning of 1946*
Production (Monthly average 1,000 tons).			
Coal	3,970	1,050	3,830
Iron ore	2,762	678	1,154
Steel	515	57	231
Pig iron	501	61	193
Aluminium	3.7	0.8	2.5
Cement	290	23	160
Wool	6	1.2	2.8
Cotton	13.2	4.8	5.6
Transport.			
Lines open (km.)	43,000	18,000	45,000
Length of navigable water-ways	9,700	1,440	9,500
Loading capacity of ports (000 tons p.a.)	45,500	15,000	30,000
Reconstruction			
Area to be freed from mines (hectares)	—	356,000	30,000
Debris to be moved (1,000 cubic metres)	—	60,000	13,000
Securing damaged houses (1,000 cub. metres)	—	7,500	4,000

Donnees Statistiques sur la situation de la France, 1946. Tables XVI—XVII.

TABLE IIIB

Index Number of Industrial Production

	Equipment Industries	*Consumption* Industries	Industries using *Mainly French* raw materials	Industries using *Mainly Foreign* raw materials
		(1938=100)		
1945 January	37	14	39	15
1945 October	65	65	70	56

Source : Institute of Conjuncture.

TABLE IIIC

French Productive Capacity

(Monthly averages)

	1938 Capacity 000 tons	1938 Output 000 tons	1946 Capacity 000 tons	1946 Capacity as % of 1938 capacity	1946 Capacity as % of 1938 production
Coal	5,000	3,970	4,200	84.0	105.8
Iron ore	4,700	2,765	4,100	87.2	148.0
Cement	350	290	350	100.0	120.7
Plate glass	25	8	25	100.0	312.5
Tyres	6.5	6	4	61.5	66.7
Cotton yarn... ...	24	21	21	87.5	100.0
Boots and Shoes (000 pairs) ...	575	383	575	100.0	149.9

Source : Institute of Conjuncture.

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[1] *Ibid.*, Chart, pp. 22–3.

By the beginning of 1946 the railroad network was all but restored. The coal mines on which they depended almost exclusively for fuel were rationalised, re-organised and provided with manpower, including prisoners of war, and their production increased from barely two-thirds of 1938 in the beginning of 1945 to above pre-war level in the spring of 1946. This represents a unique achievement in Europe. But France had relied on imported coal to roughly a third of her pre-war consumption. Effective French productive capacity could therefore not be quickly restored by internal measures alone.

Agricultural reconstruction made considerable progress. 250,000 prisoners were drafted. The clearing of mines was accelerated and the acreage increased. The supply of fertilisers was increased. All indications suggest that the harvest will be considerably higher (at about 90 per cent of 1938) than last year, when it reached only 75 per cent of pre-war.

Agricultural production 1945 (1938=100):

Wheat ...	73	Sugar ...	40	Vegetables ...	120
Potatoes ...	73	Wine ...	80	Animal products	70
		Poultry ...	69		

Industrial production has doubled from the low level of 30 per cent attained after the liberation. It is held back from rising further partly by the shortage of fuel and to a lesser extent by shortage of foreign raw materials. The U.S. exports of coal to France amounted to 500,000 tons per month, but they were extremely expensive. Britain could not export coal to France at the cost of embarrassing her domestic consumption and production, and the French were entirely dissatisfied with the deliveries from the Ruhr. The French did not receive more than 300,000 tons per month while 3.6 millions were allocated to other countries and to the Western Zones of Germany; of the latter, however, almost half was consumed by the military (including the military administration of railroads).

3. The Investment Plan

In January 1946 a special Commission was established[1] under the Presidential Office to elaborate a reconstruction plan—until then economic planning was under the Ministry of National Economy created for that purpose. In each sector of the economic system a Committee of Modernisation was established consisting of the representatives of the Government department concerned, of outside experts, entrepreneurs (industrial and agricultural) and representatives of the Trade Unions.[2] These Committees were charged with the submission of reconstruction plans for the period up to 1950. These partial programmes were to be co-ordinated and modified in the light of the general situation by the Commission of the Plan, consisting of all economic Ministers, together with 18 representatives of different economic organisations and interests, as well as of science, acting on the recommendation of the Commissioner. M. Monnet was chosen for this all-important position.

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[1] Decree No. 46, January 3, 1946.

[2] Somewhat similar to the British Working Parties. Cf. *Données Statistiques*, Mar. '46, p. 20, Note (1).

The basic design to which these plans were to conform is not altogether clear.[1] It is obvious that all Governments wish to achieve an increase in prosperity. And the ' plan ' wishes to achieve a large increase in productivity in order to increase consumption. But at the same time the aim is also to increase the military defensive potential of the country by achieving a large increase of the heavy industries, an aim which, under the changed conditions of warfare, seems backward rather than forward looking. In this, however, the French military and economic experts of to-day are not alone.

This attitude is also demonstrated by the statistical basis of the overall dimensions of the plan. It is not an estimate of minimum investment needs on the assumption of a radical reorganisation of the French economic structure to render it more efficient at the smallest cost.[2] It is based on an evaluation of the cost of restoring war-damages and of the additional needs for modern equipment. The former amounts to some Frs. 1,000 milliards[3] of 1938, or some $28 milliards.

Apart from this the Commission included a further Frs. 60 milliards for the exhaustion of other circulating capital and Frs. 160 milliards for capital consumption.

The detailed basis of these estimates by the Reparations Commission has not been published, but some idea can be formed of its probable accuracy if we compare it with estimates published in the same memorandum on the value of total national productive equipment and the value of houses for the purposes of depreciation. This amounts to between 2,000 and 2,150 milliards of francs, and is distributed between buildings valued at Frs. 1300—1400 milliards, industrial capital Frs. 350 milliards and other fixed installations, i.e. roads, bridges and ports valued at Frs. 350 to 400 milliards. Comparing these figures with estimates made in other countries, it is probable that if, as it appears, the rolling stock, etc., of the transport industry is included in the industrial equipment, the figure of 350 milliards is perhaps plausible. If it only comprises industrial installations, however, then it is far too high.

It is to be feared that in evaluating the French war losses, items have been allowed to slip in which are not germane to the problem of the re-equipment of France. Only factors influencing the stock of capital are in this respect of any importance. While estimates relating to such damages have been, as we have seen, exaggerated, the total seems also to include an unknown figure of damages caused to the national economy by the occupying forces commandeering part of the current output and thus reducing the consumption of the French population. In so far as the occupation of France lasted for more than four years and an enormous army of occupation was maintained by the Germans, French consumption was on this account very considerably reduced by the Germans;[1] finally, as the ratio of the national output to the national capital is very high, it can readily be appreciated that all this means that the war damage figure is raised to a magnitude out of all proportion to the actual decrease in the national wealth, i.e. in the capacity to produce income.

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[1] Cf. Documents *op. cit.*, pp. 6–7.

[2] This is brought out most clearly in Appendix V. 182 (*ibid.*, pp. 29–30), where the concentration in industry and the possibility of redirecting labour from distributive trades to productive employment are duly mentioned without influencing the subsequent calculation.

[3] 1 milliard = 1,000 million = 1 U.S. billion. In the following, Frs. is always taken to mean francs of the 1938 purchasing power.

Present industrial capacity of France has been estimated at between 80 per cent to 85 per cent of the 1938 capacity. Moreover the large decrease between 1929 and 1938 in the French national income was to a large extent due to a fall of her tourist revenue no longer sustained by the immense American expenditure, and by the decrease of the value of her luxury output for the same reasons. There was also a sharp fall in the value of agricultural output. Certainly a very serious consumption of capital had taken place due to obsolescence and a partial failure to renew equipment, but it would be foolish to attribute the decrease in output entirely to this cause.[2] The excess capacity in industry in 1938 was notoriously high.[3] On the other hand, French industrial productivity per manhour is shown to have increased between 1928 and 1938 by not less than 23 per cent or hardly less than that in the U.S.[4] The amortisation figures used in the document are very high and seem to be used to justify the conclusion that net disinvestment was on a large scale. No mention is made of the introduction in 1936 of the 40-hour week which had a depressing effect on production. The industrial reconstruction investment of Frs. 245 milliards alone amounts to almost a third (and if the Frs. 220 milliards for other investment are added, to almost two-thirds) of the total pre-war value of equipment, including transport, ports, railroads, public utilities.

Considering that only about 4.4 per cent of the house property was destroyed and some 13.5 per cent damaged, and most of the destruction fortunately did not occur in areas where the most valuable property was situated, the estimate for damages to houses of roughly Frs. 200 milliards or some 15 per cent of the total value is not plausible, either, especially as a further Frs. 50 milliards are claimed for agricultural and industrial buildings.

[1] The wide difference between the ' cost of the war ', and the decrease in wealth due to the war is well exemplified by the British war economic system. The cost of the war to Britain, which from an economic point of view corresponds to some extent to the imposition of contributions on the French people by the Germans, amounted to over £26,000 million. Despite the fact that Britain was far more fully mobilised for war than the Germans succeeded in mobilising France for their own purpose, and despite the fact that Britain sustained in Britain amounted to only £2,500 million, and the external increase of her debts or reduction of her assets to £4,000 million, i.e. less than a quarter of her total war effort.

[2] It is even more mistaken to attribute the failure of France to increase her productivity and modernise her industry to the burden of armaments as the official statement does. The French economic system was continuously under-employed since 1930, and it is highly improbable that in the absence of this expenditure employment would have been larger.

[3] The Commissioner himself states that the motor-car industry was only 60 per cent employed in 1938 (a curious reflection on French rearmament). *Documents op. cit.*, Annex. III, p. 20.

[4] *Documents, op. cit.*, p. 29, Annex IV. These figures must be viewed with some scepticism. But part of the increase is no doubt due to the elimination or shutting down of high cost producers.

The loss of gold and foreign reserves, of furniture (Frs. 150 milliards) is no doubt distressing, but does not diminish productivity directly. It must be borne in mind, moreover, that the population of France has also diminished.

The Commission itself felt that some reduction was called for in considering reconstruction needs. But it only reduced its estimates by Frs. 300 milliards and even this with the proviso that more would be necessary to restore ' normal activity'. Again there can be no doubt that the needs of the country were exaggerated.

This impression is very much strengthened if we take into account that the Commission estimates the cost of modernisation—provisionally, it is true—at an *additional* Frs. 500 milliards. The total *net* addition to the capital equipment of France required is estimated at Frs. 1000–1200 milliards (as some double counting in the two estimates is admitted). Having excluded the 200 milliards for the cost of restoring buildings,[1] this would represent almost the whole of the estimated value of the total productive capital stock of the country in 1938 excluding land and building.

Yet even after a considerable part of this colossal plan has been executed national income is not supposed to rise by more than 40 per cent above 1938 (or 25 per cent above 1929). That a considerable part is to be executed is suggested by the import requirements which foreshadow a colossal import of machines amounting to $2,400 millions of Frs. 84 milliards in the next four years and a general import surplus (permitting a full use of an expanding French production for investment purposes without a reduction of consumption) of $6,150 millions or over Frs. 210 milliards, i.e. 1/5th of the total programme and almost two-thirds of the total value of all fixed equipment in France in 1938.

This heavy capital expenditure planned, if conditions permit, for the next quinquennium, is estimated to yield a national income 25 per cent in excess of the peak income of 1929. Part of it will go into the widening of the capital structure but a substantial part will undoubtedly be used for increasing the capital per head employed in industry, and should lead to a large increase in output per head. The Reports give no definite estimates on this point. Relating various assumptions about man-power requirements and productivity in order to fulfill the1950 target, they arrive on the most optimistic hypothesis at an increase of productivity of 35 per cent in Agriculture and 25 per cent in Industry, as compared with 1938. In that case, the plan could be carried out with the 1945 labour force. But the plan envisages (p. 11) an increase of up to one and a half million workers.

If we compare the inter-war experience of countries such as the U.K. and U.S.A., it will be seen that the French target of a 1950 productivity, 15-20 per cent greater than 1938, is relatively low. Yet if we also compare the same investment programme with the actual investment in these countries, it would seem that the former is wildly ' expensive '.

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[1] In the documents submitted to the U.S. Frs. 1,300 milliards are mentioned without any qualification. *Donnécs, op. cit.*, p. 20, §. 24.

4. The Real Problem

The Commission was prevented by its composition from undertaking a serious enquiry on the social, in contrast to the purely technical, causes of the low productivity in French agriculture and industry which are so vastly more important than the latter and so very much more difficult to remedy.

There is, first of all, the problem of the 40-hour week, which cannot be tackled unless the workers are confident that the resulting increase in national income is not going to increase the inequality of its distribution—as it is bound to do without rigorous controls. With French total output at the low level it is, there is no justification for shortening of hours. But the question cannot be tackled except by a government which has given proof of its progressiveness and determination to reserve the gains made through the effort and sacrifice of the workers for those who most need and deserve them.

There is, secondly, the problem of increasing output per manhour. Part of the considerable loss in productivity at present[1] can be explained (as in Britain) by the malnutrition and fatigue due to the war, and further by the obsolescence of the capital equipment. The very low rate of utilisation of plant and the consequent high overhead cost is an even more important factor which will automatically disappear as production gets going. But, surely, this is not the whole story. The fact is that discipline in the work-shops has declined and cannot be improved unless the workers are convinced that the basic conditions which led to the collapse of 1940 and the victory of collaboration in Vichy are going to be altered radically. But do not all indications suggest a slow but sure whittling down of the great resolves of 1941–4?

Among the *economic* problems mainly effecting the interests of the entrepreneurial classes, which must be tackled to show this determination to effect a radical reform, the most important are those whose solution would permit maximum productivity irrespective of vested interests. French industry suffered to an even greater degree than the British from inefficient monopoly, from the consequent excess capacity and the lack of large scale production. Without concentrating production and thus enabling the erection of modern mass-production plant, without introducing some standardisation of products in those industries which do not depend on individuality (and there are many French industries which do—but they are not the capital intensive branches of the economy) a real change cannot be accomplished as the technical units which give best results are very large. But it is not possible to achieve this without State ownership or at least State control with a large measure of collective financial arrangements. Nor can the task of training and education be left to the entrepreneur if speedy progress is to be achieved. Indeed, the whole economic system must be regarded as an ' infant industry ' simultaneously and coherently planned. The present multiplicity of small firms, the waste of manpower in distributive trades, the lack of efficient technical education, all this has to be changed and with it the present methods

[1] It is roughly 15 per cent in the mines and much more in other industries.

of choosing an élite. It is surprising that all these possibilities are alluded to in four headlines only without any discussion or withuot paying any attention to them in their calculations.[1]

But apart from these—important—sources of economy, the need for investment could also be reduced considerably by introducing the multiple shift system. If—as is the case in Europe to-day—modern equipment is scarce, it can, in the short period, be doubled (and in certain cases trebled) by working it more intensively. The saving effected in this way in plant requirements might be very great indeed. Again no mention of this is made whatever in the whole of the report.

Finally, it is obvious that if all Western Countries try to reconstruct on the same pattern an appalling over-capitalisation in heavy industry will result with the same loss of equilibrium as in 1929. A coherent collaboration with the Low Countries and Britain would easily yield substantial additional savings in investment and increased real income. This question is not even broached. Yet this problem is of supreme importance. If France is to encourage immigration instead of increasing output per head[2] (and the surprisingly low anticipated increase in productivity per head despite the colossal investment programme can, perhaps, to some extent be explained by this fact) then she will render her economic system more dependent on foreign trade, thus her *real income* more dependent on her *terms of trade*. The former conclusion is freely acknowledged, when the necessity of a rise of her imports to an annual $2,200 millions is anticipated from a pre-war volume of roughly $1,500 millions.

TABLE IV *The French Import Plan**
(In millions of dollars and at 1946 prices)

	1938	*1946*	*1947*	*1948*	*1949*	*1950*
Food	122	372	100	100	100	100
Feeding stuffs	5	97	35	30	25	25
Coal	170	200	168	168	172	248
Liquid fuel	168†	60‡	150‡	115‡	128‡	128‡
Steel	8	90	—	—	—	—
Other raw material ...	634	607	792	871	990	990
Finished goods	133	—	—	30	50	50
Total	1,240	1,426	1,245	1,314	1,465	1,541
Capital equipment	(§)	650	750	750	250	—
Imports by French possessions	252	600	300	325	350	350
Freight	(§)	250	260	280	350	390
	—	2,926	2,555	2,669	2,415	2,281

Source : *Documents, op. cit.*, Annex VI, p. 33. † C.i.f. ‡ F.o.b. § Not available.

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[1] *Documents*, p. 30 (2).

[2] If this wish were based on economic and humanitarian principles, i.e. the relation of the population of France in contrast to certain other less fortunate areas of Europe, this might be more welcome. Unfortunately, the above considerations do not seem to support this view. It is to be feared that the Commission has been much more cognisant of military needs of the past than of the social and in the longer run even the military requirements of the future, especially as there is scant reference in the main body of the Report to the need for increasing the capital invested in agriculture, which would free a quite considerable number of workers for industry. A resolution demanding mechanisation of agriculture was however passed. *Documents, op. cit.*, p. 71.

This means, if the changes in other items are taken into account, an expansion of exports, if the colonial trade is allowed for, of not less than 100 per cent,[1] and most of it must be achieved in manufacturing. Any alteration in conditions abroad will have more severe repercussions on affairs in France than hitherto. And this change is to take place at the precise moment when Britain will also have accomplished her post-war reconstruction and must begin to repay her accumulated war and post-war foreign debts. Britain has at least had an important lead not merely on France, but even on the U.S., in increasing her exports, and can fully utilise the acute world shortages to re-establish her foreign markets. France will not have this advantage. She will be intent on increasing her exports at a much later —and in all probability much more difficult—moment. Nor must it be forgotten that this choice is largely of her own making. It is the consequence of the unbalanced character of the reconstruction plan she has now adopted. Yet no consideration is paid in the plan to the probable worsening of her terms of trade, despite the fact that the international agreements she entered into are extremely onerous from this point of view.

Even more astonishing is the fact that the Commission do not consider how this investment plan is to fit into the general economic policy of the country. How are investments to be maintained at that level without causing a serious inflationary crisis ? In what manner are the savings necessary to be provided ?

Here, again, enquiry would have shown that *given national unity*, given, therefore, the absence of a cumulative tussle for a larger share in the national product, France by herself could accomplish far more than the experts dare to give her credit for. In the reconstruction period after the last war up to 20 per cent of the total national income was utilised for reconstruction.[2] And at that time the international position induced the French Government of the day to maintain large armed forces—even then guarding against the last and not against the coming emergency. True enough the reliance on German reparations in terms of cash, rather than organising and utilising the productive capacity of Germany through a planned transfer, resulted in a serious inflation. But if so large a slice of the national income could then be extracted from a war-weary population by that socially most iniquitous method, how much more easily could French productive power be mobilised by a just and orderly method. By organising the economic system with some efficiency Vichy was able to put at the disposal of the Germans almost one-third of the total national income in a period of extreme shortages and against the active resistance of the population which tried to divert into the black market as much of available supplies as possible.[3] If, as is probable, French national income rises to about 80 per cent of pre-war[1] in the crop-year 1946–7, i.e. to some Frs. 350 milliards (at 1938 prices) which is a rise of Frs. 100 milliards over 1945, there seems no reason why internal investment should not rise by half of the gain. In that case the level of net investment could rise to Frs. 35 milliards, apart from obsolescence, etc., of Frs. 45 milliards. But as we have seen, from the point of view of productivity the relation of gross investment to total capital is the relevant measure as replacement consists of new and more efficient machinery. To this can be added reparations and (moderate) foreign loans.

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[1] *Documents, op. cit.*, p. 11 and Annex VI, p. 33, as against a contemplated 75 per cent in the case of Britain.

[2] Cf. *Données*, part 5, pp. 31–38.

[3] Cf. *Données, op. cit.*, Table XII, § 19, p. 15. The contribution to the Nazis *out of revenue* amounted to 13.5, 15.5 and 18 per cent of the national income of 1938 (Frs. 480 milliards), out of a national gross product equivalent to 70, 65 and 63 per cent of the natioal income of 1939, in the years 1941, 1942 and 1943 respectively. (The German burden on capital amounted to 1, 2 and 3 per cent of the national income of 1938 respectively in the same years.)

Surely a quicker reconstruction than the replacement of over 10 per cent of the total plant and its expansion by 7—8 per cent in the first year rising to double that rate with increasing production is not even desirable even if it were possible. After all not merely machines are needed but men, and highly skilled and trained men at that. The expansion of the administrative and skilled labour force cannot be rushed. It will remain the ultimate bottleneck.

These considerations show that French reconstruction, if well conceived, coherently planned and honestly administered, could have—especially if co-operation between countries in the same position had been secured—largely been based on her own effort. It is obvious, that such an effect could only be expected if all classes and especially the working class had been convinced that their sacrifice served the aim of establishing a new, at once more just and more prosperous order. Given the relatively low level of real income in France this means that voluntary savings could only have played a very subordinate role in providing the abstinence from consumption. For voluntary savings depend on comfortable incomes and comfortable incomes in France (and Europe in general) at this juncture imply gross inequality. Nor was it conceivable that the working-class would have submitted to saving enforced on the richer by rationing alone: for that method implies merely a more equal distribution of consumer's goods and leaves inequality of money incomes unchanged. The richer class thus accumulates claims on future production. Only a combination of a controlled economy, rigid rationing and price-control and of progressive taxation honestly administered, in other words, collective saving enforced on those best able to bear the burden could have produced the change of attitude which was needed. Thus the State could have financed both the nationalised and the private sector. Incentives for entrepreneurs operating in the latter would have to be provided by tax-measures partially exempting ploughed-back profits and by guarantees.[2]

The fiscal disorder besetting France—partly arising out of the maintenance of a very large army combined with the absence of effective control—has resulted in a steady upward spiral of prices. Wages have for some time been held in face of this, but as no reasonable hope could be entertained that the position would change further demands are now made both by agriculture and the workers; the spiral will revolve further. Under these conditions no plan can succeed and foreign help will continue to be dissipated because consumption, including expenditure on the army, will remain too high. The inequality of incomes is maintained, if not increased, yet sufficient savings are not made. The straits into which France sank in the period after 1930 and which the Commission so eloquently describes must continue. Yet no drastic action restoring order and national unity is even proposed.

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[1] The Committee (*Documents*, etc., *op. cit.*, Annex VI, p. 30) believes in the restoration of the 1938 level of production by the end of 1946. This estimate depends on the solution of the coal crisis and must at present be considered optimistic.

[2] Cf. My articles on Taxation, Risk Bearing and Investment, BULLETIN, Vol. 7, Nos. 11 and 12, pp. 181–192.

One cannot help concluding that the cumulative errors, all in one direction, in the Reports discussed are not altogether fortuitous. We are here confronted, on the one hand by a reluctance to face facts and hopes for impossible achievements without comparable exertions; on the other hand, by a reliance on foreign help which will make it impossible for the policy of drift to be reconsidered and for effective planning and real reforms to be carried out.

5. Bottlenecks

These conclusions are reinforced if certain details of the plan are analysed. The main accent is on the development of the heavy industry. Steel production is to be quadrupled in these years and attain the 1929 level. By 1950 the aim is 12 million tons of steel and 2.7 million tons of pig iron,[1] that is, almost 20 per cent. above 1929. The final goal is 15 million tons. Surely an inter-European co-ordination of plans could have reduced these ambitions which will render steel far dearer for everybody than is necessary, as transport of coke from the Ruhr will not be balanced by transport towards the Ruhr.

(*a*) *Coal*

This aspect of the plan is the more astonishing if one takes into account that the shortage of coal and hydro-electric energy is now and will remain one of the most menacing bottle-necks likely to play havoc with the whole conception.

Despite technical progress an expansion of coal consumption almost proportional to the rise in activity is contemplated. This indicates the importance of heavy industrial development in the plan, as other requirements do not increase in anything like the same proportion. At present French coal production is at the annual rate of 48 million tons only[2] or 108 per cent of 1938, though manpower increased to 139 per cent of pre-war. The plan contemplates an annual production at the rate of 50 millions, at the end of this year, rising in 1950 to 60 millions. As Europe's coal crisis will undoubtedly continue for a long time, an expansion of the inferior French mines is certainly desirable. It remains to be seen whether it is possible.

Hydro-electric power production in terms of coal was below 8.0 million tons (10 mlrds. kw/h) in 1938 and again in the beginning of this year. It is

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[1] *Documents*, etc., *op. cit.*, p. 40.

[2] European Coal Organisation Report for March 1946.

TABLE V

Fuel and Power 1929—1946

(Coal and electricity expressed in terms of coal : 1,000 tons)

	1929	1938	1946 (Estimated)
Requirements :			
Coal and hydro. power	93,900	75,660	75,660*
Resources :			
National Production :			
Coal	54,980	47,560	46,000
Hydro-elec. power	4,600	7,530	7,440
Excess of imports over exports :			
Coal	32,500	21,500	9.660†
Hydro-elec. power	—	—	1,000†
Change in stocks :			
Accumulated stocks	1,820	—	—
Withdrawn stocks	—	930	—
Total	93,900	75,660	64,100

*The Commission explains that the allocation to non-industrial requirements (private and public) was reduced to 15,800,000 tons, as against 22,750,000 in 1938 and 23,100,000 in 1929. Yet they claim that the actual scarcity of power will limit the activity of French economy during 1946 to below 85 per cent of that of 1938. It is difficult to follow this argument as the main part of the cut would thus have been taken by non-industrial consumers. The industrial consumers would only have to take a cut of roughly 4 million tons p.a. as against 1938. The priority system in France does not seem to be working efficiently. The calculations submitted to the U.S. (Données Table XVIII, p. 23) differ considerably from the estimate submitted to the Committee (Documents, Appendix III, p. 22, Section II.)

†Calculated on the average figures for the last quarter of 1945.

Further requirements are estimated as follows :

TABLE VI

*Coal Requirements according to Plan**

(On the basis of the co-efficient of efficiency of utilisation of 1938)†

(millions of tons)

	Business activity equal to the levels of: 1929 to be achieved in 1948	1929+10% to be achieved in 1949	1929+25% to be achieved in 1950
Domestic consumption and public utility‡	19.2	19.8	20.4
Transport	12.6	13.5	14.8
Industry	47.5	52.3	59.4
	79.3	85.6	94.6
Calculated needs of hydro-electric energy expressed in coal at the relative rate of consumption of 1929§	4.6	4.8	5.4
Total	83.9	90.4	100.0

**Ibid.*, Annex III, pp. 20–24.

†The co-efficient is calculated to increase by 1.1 per cent per annum.

‡Domestic consumption is cut by 10 per cent for 1946 and 5 per cent for 1949.

§The Commission takes the relative importance of hydro-electric power of 1929 as a basis of this calculation and thus exaggerates the coal requirement. This table is not comparable with the previous table.

to be increased by the end of 1946 to 9.6 and by 1950 to 15.9 million tons (21.2 mlrds. kw/h) of which some 10 and 5 per cent respectively are to be obtained from Germany. The total fuel and power deficit grows during the period 1946-50 from 15.9 million tons to some 24 millions if the plans are realised.

Imports at the moment are running at about 900,000—1,000,000 tons per month or 11–12 million tons per annum, i.e. roughly 50 per cent of pre-war.[1] The whole plan is founded on the supposition that imports can be doubled in the second half of the current year. But imports from the U.S. only amounted to 500,000 tons per month and they represent a serious drain on the foreign exchange reserves of the country. Imports from Germany, however, depend on a satisfactory reorganisation of the personnel and policy of German Coal Control, and indeed, on the whole economic administration of the British Zone, the introduction of a satisfactory scheme of coal supply and priorities, including a sharp cut of the supplies to the Armies of Occupation, the reform of the coal transport arrangements (which would, incidentally, free French rolling stock now in the British Zone) and restoration of supplies (not merely food) to the miners as well as the incentive to work generally. While all this is not impossible, it is extremely difficult to achieve and will probably—at least temporarily—entail a fall and not a doubling of German deliveries to France. In any case, it cannot be remedied by foreign loans as coal in the quantities required is not available.

Thus, at the beginning of the programme, we find a check which will lead to a frustration of all too ambitious plans and which ought to have been foreseen before other relevant details were determined and stringent international obligations accepted.

(*b*) *Transport*

Transport is the next most serious obstacle. At the beginning of 1946 the transport capacity of the country had been by a most admirable effort restored to

75 per cent of 1938 in the case of railroads.
60 per cent of 1938 in the case of waterways
50 per cent of 1938 in the case of roads.

So far as the length of railroad lines and waterways is concerned, the results are even better.[2] Rolling stock, locomotives and barges have suffered, of course, much greater losses. The *first* diminished from 430,000 to 270,000. But the average utilisation has increased from 9 to 12.5 tons, the hauls have lengthened. The Government hopes to recover 60,000 wagons from Germany and 10,000 from Belgium. It also ordered 55,000 wagons abroad and will place further orders for 15,000. French output is 20,000 wagons p.a.

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[1] *Ibid.* It is interesting that exports from the Saar (French Occupation) were 39 and 35 per cent of pre-war in January and February this year, when even the British Zone maintained exports in those months at 48 and 40 per cent of pre-war respectively.

[2] Cf. Table IIIA, p. 263. In April 1946, the goods-mileage was 109.2 per cent of 1938.

These orders imply a reduction of the present utilisation of the rolling stock to the pre-war level. Given the acrimonious and unco-ordinated competition of long-haul road transport at that time, this acceptance of a renewed fall of the utilisation of railroad capacity, necessitating the huge import programme, seems surprising. A better distribution between rail, canal and road transport than before the war could surely be achieved, and the need for increased (excess) capacity avoided.[1]

The number of *barges* has fallen from 12,000 to 8,000. The Government initiated an import programme amounting to 700 (originally 1,100) and ordered 1,200 (originally 1,300) units. But here again the utilisation of the existing stock was extremely low and more modern vessels would be capable of a much greater volume of effective work than the partially obsolete existing equipment.

The data concerning the *road-transport* capacity are not made available. It is suggested that the surplus stock of the Allied and French Armies will restore the pre-war quantity. A further rapid increase is calculated. The tyre situation is grave and only 20 per cent of requirements are met. But a reconstruction of French production (which has already been partly effected for the benefit of the U.S. Army) should not be impossible. Unfortunately in this respect also priority controls seem to be sadly lacking and there seems no attempt to arrive at a co-ordinated plan of road distribution which would (even more than in Britain during the War, because of the greater territory and dispersal of the population) reduce the demand for transport at any given level of nation output. No general or special measures of economic rationalisation reducing the demand for (transport) capital seem however to be envisaged.

(*c*) *Manpower*

This obsession with quantitative growth despite the nominal emphasis on productivity emerges even more in the discussion on manpower. As a result of the two wars, French manpower has undoubtedly suffered very considerable losses and the sex equilibrium of her population has been disturbed. A carefully considered qualitative immigration programme is therefore justified. There can be no doubt, moreover, that France, given her relative natural resources, is one of the few under-populated areas of Europe. Indeed it is possible that a carefully planned immigration policy would help to raise the productivity of the country in the longer run. But the need to equip the immigrants with capital is a very serious immediate drain on the country, and it must be carefully considered whether the assumption of foreign obligations for this purpose is justified without any precise safeguards.

The manpower balance of France in 1929 and 1938 respectively was as follows :—

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[1] *Documents, op. cit.*, Annex IV, p. 25–6, 10 Rail.

TABLE VIIA* *Manpower*

Categories	*1929* (In millions)	*1938* (In millions)	(Early) *1946*
Producers :			
(*a*) Agricultural employment	7.9	7[1]	6.85[3]
(*b*) Industrial workers	7	6.1[2]	5.65[4]
(*c*) Employers and salaried employees in industry, the army, the professions, commerce, etc.	6.7	7.16	7.8
Working population	21.6	20.26	20.3
Non-working population	19.6	20.92	20.15[5]
Total	41.2	41.18	40.45[6]

**Documents*, *op. cit.*, p. 28.

Of which : [1] 75,000 are unemployed. [2] 350,000 are unemployed. [3] 250,000 are prisoners of war [4] 250,000 are prisoners of war. [5] 150,000 are prisoners of war. [6] 650,000 are prisoners of war.

TABLE VIIB*

Manpower in important occupations

(Number of wage earners—in 1,000's)

	1929	*1938*	*1945*
Agriculture	2,120	1,874	1,300†
Food industry	235	332	291
Chemical industry	184	159	120
Textile industry	807	611	380
Clothing industry	831	838	576
Metallurgy	155	118	118
Engineering : iron and steel	1,114	1,006	1,069
Public Works and buildings	748	615	791†

**Ibid.*, p. 29. The figure for productivity must be rather uncertain on account of the deficiency of French production statistics.

†Axis prisoners of war are not included in these figures.

The productivity in agriculture increased by 17 per cent in agriculture and 23 in industry between 1929 and 1938 :

TABLE VIII* *Productivity, 1929-38*

Categories :	Effective Workers (millions)		Ave. hrs. worked weekly		Total hrs. yearly (millds.)		Prodctn.		Productivity Daily		Productivity Hourly	
	1929	1938	1929	1938	1929	1938	1929	1938	1929	1938	1929	1938
Agricultural producers	7.9	6.9	—	—	—	—	1	1.03	1	1.17	—	—
Industrial producers	7.0	5.8	48	39	17.4	11.2	1	0.79	—	—	1	1.23

**Documents*, *op. cit.*, p. 28.

It is seen that, contrary to all complaints in the Documents published, French productivity per manhour has increased almost as much as in the U.S. and this in a period in which (at least according to official figures) net disinvestment had taken place. In point of fact the fall in production can almost entirely be explained by unemployment and the reduction of the hours of work. The drift from productive to distributive and other non-agricultural or manufacturing employment was a secondary cause.

Nevertheless an immigration of not less than 1 to 1.5 million workers is suggested, or an increase on the present French manpower (excluding prisoners) of between 8 to 12 per cent. The suggestion that the employment of war prisoners is ' *excellent* en principe; *malheureusement* il est limité '[1] shows the spirit in which this question is tackled. After all slave-labour obtained by twisting the stipulations of the Geneva Convention might be necessary; but it cannot ever be ' an excellent means ' either for the slave or for the slave-holder.

Once more other, more delicate means of adjustment are mentioned (female work, increase in working age, etc.) but not explored. The main recommendation is immigration, though ' other methods ' are hinted at.[2] It is to be hoped that further study will modify this attitude. No doubt the employment of foreign unskilled labour in certain occupations, especially mining and agriculture, will remain a feature of Western European life; but France must not be blinded by quantity. Without solving the problem of quality especially in her economic and administrative general staffs and her technical personnel, all these plans will go awry. And in this failure the desperate desire to guard against past mistakes instead of facing the future will have played a prominent part.

[*To be concluded.*]

T. BALOGH.

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[1] *Ibid.*, p. 29, my italics.
[2] *Ibid.*, p. 44.

TABULAR APPENDIX

EDITORIAL NOTE

The following set of tables presents figures illustrating the economic development in U.S.A. and some European countries. As far as possible 1938 was taken as the base year, but it should be remembered that 1938 was in some countries a year of severe recession. The figures are given as far as possible as monthly or quarterly averages.

When statistical data of foreign countries become more easily available, we hope to add other countries and to include new series in this survey.

Explanation of Symbols

( ) — figure is provisional or approximate.

N.A. — figure is not available — — figure is negligible.

B. ECONOMIC DEVELOPMENTS ABROAD.

TABLE I. U.S.A.

Index Numbers 1938=100[1]	Monthly Average				1945	1946			
	1939	1943	1944	1945	May	Mar.	Apr.	May[2]	June[2]
Income Paymts. (Mthly.) :									
Total, $1,000 Mill.	5.9	11.9	13.0	13.4	12.8	13.1	N.A.	N.A.	N.A.
Index, adjusted	107	216	237	242	246	239	237	237	N.A.
Consumer Expenditures :									
Mthly. aver. $1,000 Mill.	5.1	7.6	8.2	8.7	8.3[3]	9.2[4]	N.A.	N.A.	N.A.
Index, adjusted	105	156	168	179	170	205	N.A.	N.A.	N.A.
Dept. Store Sales, Value Index	107	170	188	209	191	266	252	259	278
Vol Index of Farm Mktgs.[5]	109	133	140	137	152	145	N.A.	N.A.	N.A.
Vol. Index of Ind. Prodn.[6]	122	268	264	228	253	189	185	180	191
Durable Manuf.	140	461	452	351	415	234	245	224	246
Non-durable Manuf.	115	185	180	175	182	174	172	170	170
Constrctn. Contr. Awarded									
Value Index	113	106	64	106	91	230	266	283	N.A.
Vol. Index[7]	113	86	50	81	70	162	N.A.	N.A.	N.A.
Index of Non-Agr. Empl.[8]	106	139	135	129	132	128	130	131	N.A.
Index of Factory Emplyt.[9]	111	197	191	166	179	145	152	154	155
Index of Wholesale Prices	98	131	132	134	135	138	140	141	143
Do. Farm Products	94	179	180	186	188	193	196	199	N.A.
Cost of Living Index	98	123	124	127	127	129	130	131	N.A.
Facty. Av. Hrly. Earngs. cts.	63.3	96.1	101.9	102.3	104.2	103.4	105.8	N.A.	N.A.
Do. 1938=100	101	153	162	163	166	165	168	N.A.	N.A.
Mthly. Com. Expts.[10] Mill. $	260.3	206.9	238.0	336.6	330	673	660	751	N.A.
Mthly. Ret. Impts. Mill .$	189.7	281.7	322.4	339.5	362	373	393	389	N.A.

Sources : Department of Commerce for Income Payments, Consumer Expenditures and Farm Marketings : *Board of Governors of the Fed. Res. System* for Industrial Production and Department Store Sales ; *U.S. Dept. of Labor* for Wholesale Prices, Cost of Living, Employment and Hourly Wage Earnings ; *F. W. Dodge Corp.* for Value of Construction Contracts awarded.

[1] All index numbers, except those of wholesale prices, cost of living (and wages) are adjusted for seasonal variations.

[2] Partly provisional. [3] Monthly average, 2nd quarter. [4] Monthly average, 1st quarter.

[5] 1935—1939=100. [6] Mining and Manufacturing.

[7] Value Index deflated with (Engineering News Record) Index of Construction Costs.

[8] All non-agricultural wage—and salary earners except those in Domestic Service and in the Armed Forces. [9] Revised series.

[10] Excluding Lend Lease and Re-exports but including U.N.R.R.A. supplies.

TABLE II FRANCE

Index Nos. 1938=100	Monthly Average				1946				
	1939	1943[1]	1944[1]	1945	Feb.	Mar.	Apr.	May[2]	June[2]
Production of Coal[3]									
1,000 metr. tons ...	4,185	3,538	2,217	2,922	3,800	4,207	4,043	4,138	3,841
Index	106	89	56	74	96	106	102	104	97
Production of Steel									
1,000 metric tons ...	617	194	106	134	244	297	320	342	343
Index	128	38	21	26	47	57	62	66	66
Index of Production of :									
Cement	N.A.	74	36	44	59	75	87	N.A.	N.A.
Commercial Vehicles ...	N.A.	48	26	83	139	145	170	180	N.A.
Passenger Cars	N.A.	—	—	0.85	8.5	10.5	12.5	15.5	15.0
Cotton Fabrics	N.A.	17	N.A.	22	58	63	68	73	N.A.
Approved Building Plans[4]									
1,000 cbm.	706	79	55	151	347	376	375	N.A.	N.A.
Daily Wagon loadings									
('000)	41.1	21.9	8.9	16.7	27.1	27.9	29.8	30.5	N.A.
Index of Wholesale Prices[5]	N.A.	218	262	366	462	521	526	620	528
Imports Mill. frs.	3,649	1,162	645	4,569	13,512	12,006	20,886	19,769	28,528
Exports Mill. frs.	2,633	2,945	1,997	949	3,728	4,195	7,568	7,258	8,505
Imports '000 tons ...	3,262[6]	388	186	859	2,381	2,044	2,916	2,647	3,181
Exports '000 tons	2,083[7]	1,067	588	220	577	664	809	926	892

Sources : Statistique Générale de la France ; La Vie Francaise, Hebdomadaire Economique et Financier ; League of Nations, Monthly BULLETIN of Statistics.

[1] The Production figures and the statistics of wagon loadings for 1943 and 1944 exclude Alsace-Lorraine.
[2] Partly provisional.
[3] Including lignite.
[4] Covering Greater Paris and 41 provincial towns.
[5] 1941 weights.
[6] 3,929,000 tons in 1938.
[7] 2,249,000 tons in 1938.

TABLE III BELGIUM

Index Nos. 1936–38=100 Monthly figures or averages	1939	1943	1945	1945 Mar.	1945 Apr.	1946 Jan.	1946 Feb.	1946 Mar.	1946 Apr.
Industrial Prod. : Index									
General	N.A.	N.A.	35	21	23	68	69	(74)	(75)
Coal	N.A.	N.A.	53	48	43	75	78	(76)	(77)
Iron	N.A.	N.A.	28	14	21	62	65	(70)	(70)
Textiles	N.A.	N.A.	35	9	14	79	81	(88)	(89)
Food Ind.	N.A.	N.A.	36	26	27	56	52	(57)	(65)
Coal Prod. 1,000 m. tons	2,487	1,979	1,310	1,322	1,034	1,944	1,813	1,929	1,885
Steel Prod. 1,000 m. tons	259	139	61	17	33	154	149	171	172
Imports[1] Mill. frs. ...	2,018[2]	535	1,144	287	843	2,663	2,786	2,963	3,129
Exports[1] Mill. frs.	1,850[2]	743	331	92	116	1,174	1,291	1,870	1,661
Imports[1] '000 tons ...	2,868[2]	659	632	68	115	1,440	1,555	1,588	1,391
Exports[1] '000 tons ...	1,912[2]	537	121	38	40	372	384	510	483

Sources : BULLETIN DE STATISTIQUE (Office, Central de Statistique) : Monthly BULLETIN OF STATISTICS, League of Nations.

[1] Figures for 1936–38 and after April 1945 refer to Belgium-Luxemburg.
[2] Monthly average 1936–1938.

TABLE IV SWITZERLAND

Index Nos. 1938=100	1939	1943	1944	1945	1945 June	1946 Mar.	1946 Apr.	1946 May	1946 June
Index of:									
Industrial Employment[1]	99	105	100	110	117[2]	119[3]	N.A.	N.A.	120[2]
Wholesale Prices ...	104	204	208	206	206	200	199	199	199
Cost of Living	101	148	151	152	153	149	149	150	151
Tourism (monthly)[4] ...	77	24	26	42	23	63	59	67	68
Monthly Impts. Mill. frs. ...	157	144	99	102	75	313	279	279	273
Monthly Expts. Mill. frs.	108	136	94	123	134	201	199	225	199
Index of Imports at 1938 prices	117	47	32	31	22	107	98	101	104
Index of Exports at 1938 prices	96	63	40	57	62	99	93	105	96

Sources: Schweizerische Nationalbank, Monatsbericht.

[1] Number of wage-earners employed in a representative sample of establishments, including building. Quarterly figures or averages.

[2] 2nd quarter.

[3] 1st quarter.

[4] Based on the statistics of nights spent by foreign tourists in Swiss hotels.

TABLE V DENMARK.

Index Numbers 1938=100	1939	1943	1944	1945	1945 Apr.	1945 May	1946 Feb.	1946 Mar.	1946 Apr.	1946 May
Index of:										
Industrial Production[1] ...	105	87	87	79	73	71	95	96	96	77[2]
Prodctn. of Animal Prodts.[3]	103	58	68	68	66	80	65	71	69	91
Prodctn. of butter[3]	96	66	67	69	58	83	55	59	68	90
Prodctn. of bacon[3]	99	51	65	59	53	73	53	65	42[4]	83[4]
Wholesale Prices	105	191	194	190	196	195	180	182	183	182
Cost of Living	101	155	157	159	159	N.A.	N.A.	157	N.A.	N.A.
Monthly Imports Mill. Kr. ...	145	102	97	59	30	23	143	185	174	195
Monthly Exports Mill. Kr. ...	131	103	112	75	46	29	93	90	108	94
Index of Imports at 1938 prices	98	34	32	21	10	7	56	71	66	74
Index of Exports at 1938 prices	101	44	46	32	19	12	43	42	51	48

Source: Statistike Departement, Statistike Eftnerretninger.

[1] Adjusted for seasonal variations. [3] Revised series.

[2] Affected by strikes. The figures for June and July are 96 and 97 respectively

[4] Abnormal figures due to a strike in the industry.

TABLE VI SWEDEN

Index Numbers 1938=100	1939	1943	1944	1945	1945 May	1945 Dec.	1946 Mar.	1946 Apr.	1946 May
Index of:									
Industrial Production[1] ...	106	93	93	91	72	107	109	109	109
Industrial Employment[2]	103	102	103	99	85	105	109	109	110
Wholesale Prices ...	103	175	175	173	175	170	164	164	165
Cost of Living	102	144	145	146	145[3]	N.A.	N.A.	145	N.A.
Monthly Imports Mill. Kr.	208	151	139	91	48	157	226	267	299
Monthly Exports Mill. Kr.	157	98	69	146	44	234	167	180	237
Index of Impts. 1938 prices	109	33	35	21	11	37	58	69	78
Index of Expts. 1938 prices	106	37	26	56	16	91	62	67	87

Source : Skandinaviska Banken, Quarterly Review ; *League of Nations,* Monthly Bulletin of Statistics.

[1] Mining and manufacturing. [2] Number of wage-earners in mining and manufacturing.

[3] April.

TABLE VII NORWAY

Index Nos. 1938=100	1939	1943	1944	1945	1945		1946		
					May	Dec.	Mar.	Apr.	May
Index of :									
Industr. Production	107	81	76	69	60	79	99	100	105
Wholesale Prices ...	102	175	177	177	179	166	165	167	170
Cost of Living	101	150	152	155	155	156	157	157	158
Monthly Impts. Mill. Kr....	114	84	60	101	31[1]	113	116	134	N.A.
Monthly Expts. Mill. Kr....	67	45	43	27	38[1]	43	75	88	N.A.
Vol. of Imports Index ...	111	29	19	46	7[2]	55	52	N.A.	N.A.
Vol. of Exports Index ...	108	33	29	19	29[2]	32	55	N.A.	N.A.

Source : Bulletin Mensuel du Bureau Central de Statistique du Royaume de Norvège. League of Nations, Monthly BULLETIN OF STATISTICS.

[1] April. [2] March.

TABLE VIII

COAL MINING IN PARTS OF EUROPE

Output and Supplies of Coal in Western Europe Jan.–March, 1946[1].

	Employment[2] ('000)			Production[3] ('000 m. tons)			Imports[4] ('000 m. tons)		
	Mar.	Apr.	May	Mar.	Apr.	May	Mar.	Apr.	May
Germany[5]	229	232	233	4,386	4,043	4,453	—	—	—
France[6]	313	315	318	4,205	4,044	4,142	994	900	627
Belgium	159	156	154	1,929	1,885	1,885	467	275	295
Holland[6]	33	33	32	662	698	665	331	236	211
Luxemburg	—	—	—	—	—	—	169	111	154
Norway	—	—	—	—	—	—	206	157	135
Denmark	—	—	—	—	—	—	443	339	265

	January 1946			April 1946		
	Employment.	Production.	Domestic Supplies[7]	Employment.	Production.	Domestic Supplies.[7]
	In % of mthly. av. 1935–8			In % of mthly av. 1935–8		
Germany[5]	77[8]	47	47	73[8]	36	38
France[6]	139	102	83	139	104	85
Belgium	116	82	95	113	79	87
Holland[6]	105	58	64	105	59	69
Luxemburg	—	—	54	—	—	44
Norway	—	—	45	—	—	62
Denmark	—	—	64	—	—	72

Source : European Coal Organisation.

[1] Figures to nearest '000 workers and metric tons. May figures provisional.
[2] Underground and Surface Workers, excluding Office Staff.
[3] Hard coal (clean coal raised to the surface).
[4] All solid fuel.
[5] Western Germany only (British and French zones).
[6] Including brown coal.
[7] Production *minus* exports *plus* imports.
[8] Against average 1935–37.

Erratum.

BULLETIN, Vol. 8, No. 7, p. 213, Table II, at the head of column 4—Output per head in U.S. 1939, the symbol should be $ and not £.